

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



# THE MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, and Rural Economy.

VOL. 10.

BALTIMORE, MARCH, 1873.

No. 3.

## TOBACCO.

ITS HISTORY—USES—MODE OF CULTIVATION—  
GENERAL MANAGEMENT, AND ITS  
COMMERCIAL STATUS.

### WORMS.

The worms ought to be destroyed as fast as they appear, or they will destroy the crop. Turkeys are the greatest help in this warfare that the planter can get.

It is best, however, to begin the fight with the worms, beforehand. During winter or early spring dig up the ground around the tobacco houses and under the sills, inside the house, as well as outside, and the worms in a chrysalis condition will be found, looking like small black cones of pine; destroy all these, as each one has the butterfly which lays the eggs that produce the worms. Use cobalt freely as soon as the Jamestown weeds put out their blossoms. Continue the use of cobalt during the season on the weeds and on the tobacco plants that come into flower. Thousands of horn-blowers are thus destroyed. Let a small reward be offered for the head of the hornblowers, and thousands will be destroyed by the children on the farm for amusement and gain. If every planter in a neighborhood would steadily pursue this system, in a short period the tobacco worm would disappear, and an untold amount of labor, vexation and money loss would be avoided.

For a full entomological description of the tobacco worms, and the easiest and most effectual mode of rendering them comparatively harmless, we refer the reader to letters from practical planters, addressed to J. S. Skinner, Esq., and published in the "Farmer's Library" in 1848, and also to a chapter from an unpublished work by Dr. Louis Mackall on "Sphinx Nicotianum," or Horn Blower, page 236, Vol. IX, *Maryland Farmer*.

### CUTTING AND CURING.

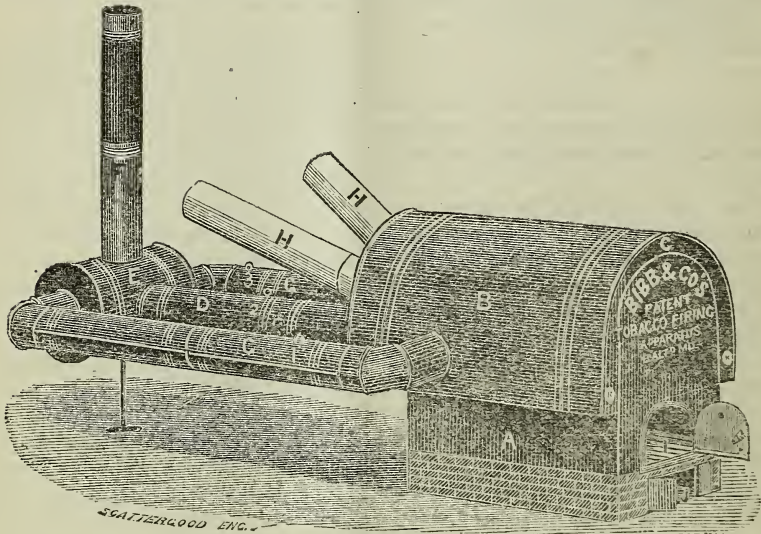
When the plant begins to yellow it is time to put it in the house. It is cut off close to the ground,

by turning up the bottom leaves and striking with a tobacco-knife, formed of an old scythe—such knives as are often used in cutting down corn.—The plants should lie on the ground for a short time, to fall or wilt, and then be taken up and placed in small heaps of eight or ten plants, to be removed in a cart or wagon to the tobacco-house, or to be speared in the field, and then carried on the sticks to the house. There are various modes of securing it in the house—by pegging, splitting, tying with twine and spearing, the latter now being considered the best and most expeditious method. Tobacco sticks are small, round and straight,  $4\frac{1}{2}$  to  $5\frac{1}{2}$  feet long. They may be rived out like lath or narrow paling, 1 to  $1\frac{1}{2}$  inch broad, and  $\frac{3}{4}$  to 1 inch thick, smaller at one end than the other. One end is sharpened to admit the spear. The spear is round, or like the Indian dart in form. It is made of iron or steel, bright and sharp. These sticks are carried to the field, and dropped one at each heap of newly cut tobacco. The spearing is done by jobbing one end of the stick into the soft ground, the spear being on the other end, and with both hands running the plant over the spear and down the stick, thus stringing the 8 or 10 plants in the heap on the stick. It is then laid in piles, or placed at once on the wagon to be taken to the house, and handed up to the person who hangs the sticks across the joists or beams, placing them 12 or 15 inches apart, and smoothing the leaves down so as not to let them crumple in the curing, and adjusting the plants on each stick, that one shall not crowd the other. As the tobacco cures, the sticks may be pushed closer together, to make room for more tobacco, and to exclude damp air from the cured tobacco. The tobacco houses should have many doors and windows, so as to admit light and dry air, and, by closing them in bad weather, to exclude the rain and dampness, which materially damage the tobacco, besides injuring the color of it. But a better plan for such as can afford it, and all can who grow large crops, is to have the house

perfectly tight when the doors are closed, and to hang the tobacco plants rather further apart, and cure it with Messrs. Bibb & Company's patent tobacco "firing and curing apparatus."

This apparatus is not costly, and will pay for itself by the increased value of ten hogsheads, or, in some cases, five hogsheads. Ripe tobacco cured by it is admitted to be worth in the market twice as much as if air-cured. It is highly recommended by all who have used it. It saves the expense of large barns by effectually curing the tobacco in a few days, when it can be taken down and removed to convenient sheds, or pushed to the outer sides of the house, and stowed as closely as possible without danger, for it is thoroughly dried, and

of some one of that class of our people who are always prejudiced against any new invention which seems to be likely to revolutionize old habits and practices. The gentleman who first invented, or suggested its invention, Dr. Dorsey, of Calvert county, Md., still continues to use it, and with wonderful effect in increasing the money value of his crop. A gentleman we know was charmed with it the first reason, because, he gave it his personal attention, and reaped, in the increased price of the crop sold for, his ample reward. The next year it was no longer a novelty, and was left to the management of a negro, and the result was a disappointment and condemnation of the apparatus. Machines and new inventions must attend to them-



BIBB & CO'S PATENT TOBACCO FIRING AND CURING APPARATUS.

the house can be again filled; and thus the curing of the crop goes on until all is secured. With this apparatus the dried tobacco can be brought into the proper state for shipping and preparing for market at any time, by means of the warm vapor it produces when arranged for the purpose. Any person of ordinary intelligence can manage it. So safe is it from danger of fire that many careful planters use it without fear in houses surrounded by wheat and haystacks. This tobacco curing apparatus was condemned by some who used it, but it was because, we believe, that its management was left to ignorant and careless negroes, no regard paid to the thermometer indicating the degree of heat to be kept up steadily to suit the different stages of the curing of the plant; green, often sobby wood was used; the fire allowed to go out almost for want of fuel or attention; or it was in charge

of some one of that class of our people who are always prejudiced against any new invention which seems to be likely to revolutionize old habits and practices.

After tobacco has been cured and is dry, whenever the weather is mild and damp it will become soft and pliant, and then may be stripped. It is first taken off the sticks and laid in heaps, and then the leaves are stripped from the stalks and tied in bundles of about one-fifth or sixth of a pound each. The bundle is formed by wrapping a leaf around the upper part of a handful of leaves, for three or four inches, and tucking the end into the middle of the bundle. There should be, if the quality of the crop permits, four sorts of tobacco, second, bright, yellow, and dull. When the tobacco is taken down the cullers take each plant and pull off all defective, trashy, ground, and worm-eaten leaves next to the big end of the stalk, and then throw it to the next person, who takes off all the best bright



leaves, (and if there be any yellow leaves he lays them one side, until he has got enough to make a bundle,) and throws the plant to the next, who takes off all the rest, being the dull; and the respective strippers, as they get enough leaves in hand tie up the bundles, and throw them apart to keep the sorts separate for convenience in bulking.—Stripping should not be done in dry, harsh weather. It is best not to take down more than can be tied up in a few hours. The bundles should be small and very neatly tied, or wrapped so that the top of the stems be covered and wrapped for four inches down. This forms what is called "the head of the bundle."

To bulk tobacco requires judgment and neatness. Logs should be laid parallel, with sticks or boards across to support the bulk, and allow free passage for air under the bottom. The bundles are then taken, one at a time, smoothed and spread out. This is most conveniently done by putting them against the breast and stroking the leaves downward, smooth and straight, with the hand.—They are then passed, two bundles at a time, to the man bulking. He lays them down, two at a time, in a straight row, and presses with his hands; the broad part of the bundles slightly projecting over the next two. Two rows of bundles are put in a bulk, and both carried on together; the heads being the outside, and the tails touching or barely lapping. The bulk, when carried up to a sufficient height, ought to have a few sticks laid on the top to keep it in place. It must now be often examined, and if it gets warm or begins to have a musty bad smell, it will require to be changed into another bulk, laying it down one bundle at a time without pressing, so that it may lie loose and open to admit free circulation of air. This is called wind-rowing. After it has become thoroughly dry and has a sweet smell, it is fit to "condition;" that is, when the moisture or warmth of weather makes it pliant, it is bulked in three or four, or even six-rowed bulks, and covered with boards or sticks, and weighted down with logs, &c., when it will keep in nice order for packing in hogsheads at any time. The best time to pack is during mild, pleasant weather of spring, or in summer.

#### THE OLD SYSTEM OF GROWING TOBACCO.

In the days of slavery, tobacco, like king cotton, was grown on too large a scale, and consequently did not pay per acre what it ought by half, and impoverished the lands where it was grown. Now, things have wonderfully changed, and planters cannot afford to pay high prices for the unstable labor of migratory freedmen, and grow tobacco on a large scale. Again, when grown extensively by one

planter, as formerly, he cannot compete in the market with the small crops, nicely handled, of the thousands of farmers who are for the first time growers of tobacco. Another reason is, common tobacco will not sell for a remunerative price now-a-days. Nothing but good, fair tobacco, with fine wrappers, will sell, and that brings high prices. It is clear, then, that the best policy for growers is to try to make no more than they can make and take care of, so as to command a good living price.—With industry and a favorable season, and good soil, as many as 7,000 or 8,000 pounds of tobacco have been made by each hand, little and big, besides the other usual grain crops on a farm; but being made on all sorts of land, and air-cured, rammed into houses forced to hold double their proper capacity, the tobacco allowed to make as great a growth as possible, looking to weight more than quality, and carelessly managed from beginning to end, it brought in the market an average price of \$3 per 100 pounds. This would be \$240 per hand for the very extraordinary crop of 8,000 pounds. This was bad management, then, when labor cost nothing but food and clothing, and yet that expense was repaid with enormous interest in the increased value that very labor was acquiring for its owner. But now, when so high a price must be paid for labor, such a practice is ruinous. Under the present state of affairs but one course is left for the grower of tobacco, and if he follows it we are sure he will reap a full reward. We venture to suggest a system.

#### A NEW SYSTEM OF GROWING TOBACCO.

In the beginning we would say, unless his land is a good tobacco soil naturally, let no man attempt at this day to grow the plant, for if he does he must fail to make a living profit from his labor. If the soil is light, alluvial, clover-producing, and too light for heavy crops of wheat, let it be well plowed in the spring, and, unless very rich, fertilized so as to hasten the growth of the plant; work it well, after planting no more than can be managed well by faithful and reliable laborers on the farm during all its stages, from planting to packing; keep it clear of worms; top early and top low; house when ripe; cure with the tobacco-curing apparatus; assort and manage neatly, and send to market in nice order. This being done there will probably be an average of 800 pounds to the acre, worth from \$20 to \$30 per 100 pounds, or \$160 to \$240 per acre. Allowing three acres to each hand, you have an income of \$480 to \$720 per hand, and only three acres of land employed, while on the old system eight acres were used, and only \$240 made. These estimates are low, for there are many instances in the lower

counties of Maryland where much larger returns have been realized by pursuing this system, which we do not claim as original, but the result of the actual experience of practical planters, who did not stop to lament during the transition state of labor, but boldly met the tide of impending ruin, and started out upon a new system, employing with pleasure all the substitutes for labor, offered by labor-saving machinery and new inventions, to aid the skill and furnish hands to the husbandman; and they have been well compensated for their hopeful enterprise.

The golden rule now should be with tobacco planters, to make as much as possible from the smallest quantity of ground. This is to be done by making the land as rich as possible. The tobacco grown on this highly fertilized soil will be of more saleable quality, and the amount realized from the acre will be not only increased by the increased weight, but also from the enhanced value per pound. We believe that any soil suitable for tobacco can be made to yield, in any State, as much per acre as is usually obtained in the State of Connecticut and Massachusetts. The great secret of their heavy products per acre of this crop lies in the quantities of manure used, and the superior cultivation, especially in the preparation of the ground before the plants are set out. We here give, for proof of our theory, and as an example to be followed, at least to a certain extent, an interesting statement of the extensive use of manures, and manner of applying them in raising tobacco in Massachusetts. *Mr. Jas. M. Crafts*, of Whately, Franklin county, Mass., writes to the Agricultural Department of the U. S. as follows:

"I am one of a company of five persons who, in the last two years, have bought and shipped from Whitehall, New York, over eighty car-loads of horse-manure. Other parties have bought fully as much in Middlebury, Rutland, Montpelier, and Saint Johnsbury, Vermont. The cost at our station has averaged about \$10 per cord. Other parties have bought manure from the East Albany cattle-yards—perhaps 50 car-loads in less than two years—all of which, I think, has been sheep-dung. Others have been to New Haven, Connecticut, and still others to Boston and Cambridge; and now two of our farmers have been to Canada and bought 25 car-loads. A car-load of horse-manure contains about 7 cords, perhaps 6% on the average. This is generally obtained from livery-stables. That from Whitehall, New York, is from stables where canal horses and mules are kept. These are fed highly with grain, and the manure is very valuable. It is used on tobacco lands at the rate of 10 cords to the acre. Probably there is no other species of manure which affords in such abundance all the elements of tobacco. It is rich in potash, phosphoric acid, magnesia, &c.

"I will add a word about our mode of applying manure to tobacco. If, after spreading broadcast, we

plow it under, the plowing is very shallow—not more than 5 or 6 inches deep. But as a rule we prefer to allow the manure to ferment and become fine, then spread it even and work it in upon the plowed surface with the gang-plow or with one of the wheel pulverizing-harrows; and we like the kind that is attached to a straight piece of plank with a tongue and seat. We would like to go over the ground as many as eight times with it; in fact we generally do go, say, four times one way, and as many the other, finding our pay for the extra labor in the fineness of the soil.—We are doing this work more thoroughly than we used to, and think we are well paid for it. We next fit the hills by ridging the land  $3\frac{1}{2}$  feet apart, and the hills 2 feet. Under this course we have found that we do not get much advantage from the use of superphosphates in the hill.

"Some have tried experiments by using wheat-shorts as a fertilizer for tobacco, at the rate of 3 tons to the acre. A member of our club raised an acre of tobacco with shorts as a fertilizer, and the crop was a good one, estimated at 1,800 pounds. On another piece he tried Indian meal at the same rate with not nearly as good results. On 4 acres he used 800 pounds of shorts and 100 to 150 pounds of superphosphate strewed (after marking) on the marks, and then ridged so that the hills were made over the shorts and superphosphate. This gave him the best tobacco he ever grew, though he had used, by working in on the plowed surface, about 8 cords of manure and 800 pounds Peruvian guano to the acre."

Just see the heavy cost of manure, and note the preparation—*eight workings after a deep plowing, before the plants are set out!* It is estimated that in Connecticut every acre planted in tobacco, costs in manure from \$60 to 75 per acre, and not less than \$15 expended in hire of hands to destroy the worms. Yet the tobacco grower reaps a large profit. He grows say 2,000 lbs. per acre, and gets on an average \$20 per 100 lbs.—or a gross return of \$400, thus netting over \$300 per acre. The same expense and pains-taking would make a like return in Maryland or Virginia, or other States favorable to the growth of tobacco.

[TO BE CONTINUED.]

SMUT IN WHEAT.—F. R., of Richmond, Va., in the *Southern Farm and Home*, submits the following on the mooted subject of smut:

I see that writers in your valuable journal recommend steeping wheat in a solution of blue-stone or in brine, as a preventive of smut. With all respect I differ from these worthy gentlemen. The way to prevent smut in my humble judgment is never to sow unripe and immature seed. I believe that smut comes from unripe seed, and that if the grain intended for seed were left to become dead-ripe, as it is called, we should never raise a crop of smut. At least such is my experience, and I have raised wheat for many years. I believe in changing the seed very often, and importing it from a considerable distance, as a protection against rust, but smut can be prevented, I know, by sowing none but thoroughly-ripe seed.



## *Agricultural Calendar.*

### FARM WORK FOR MARCH.

Every farmer has before this, no doubt, formed his plans and made his arrangements for the farm operations the present year, and is ready to embrace the earliest moment that will present itself this month to begin his active labors. This is an important period of the year to the farmer. If the weather be propitious, and the frost gets out of the ground early, it will set him forward in his spring work so far, that he will be able to keep ahead of his work the whole year, unless he commits the unpardonable fault, too often done, of over-cropping himself, for his force and means.

#### TOBACCO.

The planter ought to strive to get his tobacco into market as early as it can be done properly; it is then out of his way, free from loss, damage and depredation, and where the favorable moments to sell may be availed of. As to its preparation for market, we refer our readers to the article on Tobacco, continued in this number of our journal, which we have been at great pains in preparing for the benefit of all, but especially for young beginners in the culture of this valuable staple production.

#### OATS.

As we have said before, quite recently, we say again, oats ought to be sown as early as the state of the land will permit, for, the earlier sown, the better will be the crop. It is time and labor thrown away to sow this seed on poor land, while it is a profitable crop on good land. Plow the land deep, harrow and cross-harrow until it becomes light and mellow, and whether the oats are lightly plowed in or harrowed in, sow clover seed, two gallons per acre; then roll, so as to compact the soil about the seeds. One and a half or two bushels should be sown per acre. Get the best seed, such as Excelsior, Norway or other heavy oats. With the oats, sow 6 or 10 bushels of bone dust per acre, and dress the whole field with a mixture composed of equal parts of salt, plaster and ashes, (if to be had,) at the rate of two bushels of each per acre. The ashes may be left out, if not convenient, but it is a valuable ingredient in any mixture, for both the land and most crops. The land should be well drained or deeply subsoiled for this grain, as it requires moisture, which deep cultivation is calculated to afford, while it does not do well on sobby land, with a hard pan near the surface. A fair crop of oats in an ordinary year, cultivated as above, would be from 40 to 50 bushels, worth from 60 to 75 cts.

per bushel weight, and the straw packed was worth the last autumn, and is now, in this city, \$30 per ton.

#### FENCES.

Let these be put in proper order, and all bushes and briars cleared from the corners and sides, as they cause the fence rails to decay, and a clean fence gives an air of neatness to the farm.

#### CLOVER.

Should a favorable time come this month, sow your clover seed, and harrow it in amongst the wheat and rye. The harrowing will benefit the grain by loosening the hard crust of the grain fields, formed by the rains and drying winds of the winter. It is a working for the small grain crops that is highly beneficial. This work may be put off until next month without detriment.

#### CORN.

Do all the plowing for the corn crop you can this month, so that it can be put in good order with the harrow when desired, or afford you the time to cross-plow all the rough places, that the entire field may be in the best tilth for the reception of the grain when it is time to plant. As many of our readers live in the Sunny South, where corn planting is going on at this season of the year, we would urge them to plant only on well prepared fertile or highly manured ground, for otherwise, at the high price of labor and low price of corn, the crop will not pay expenses. Better be a month later in planting, if the delay will enable them to prepare the land well, and manure it or fertilize it with some good super-phosphate, or other grain-producing manure.

#### POTATOES.

As in this section early potatoes pay better than late ones, we would advise that a few acres be planted as soon as the weather and condition of soil permit. To grow the largest crop, the land should have been deeply plowed and heavily manured last autumn, so that now, by cross plowing and harrowing, the manure would become thoroughly incorporated with the soil, and easily brought into fine tilth, but if this has been neglected, the ground intended for this crop should be highly manured and plowed deep, and got into fine condition. Then lay off rows, three feet apart, and four inches deep; in these trenches sow some phosphatic fertilizer, at the rate of 400 lbs. or more per acre, according to the strength of the article, or scatter in the rows well rotted stable manure, and drop the pieces of potato 10 or 12 inches apart in the rows. If the potatoes are cut small, put two pieces in a place; if cut in halves, one piece is enough. Cover with a small plow or with the hoe,

The seed should be the best, which is just now conceded to be the Early Rose, both for early and winter crops. They ought to be medium size and well ripened for planting.

We do not like the practice of planting small potatoes—"like begets like,"—although we confess to have sometimes grown large potatoes and a large crop from very small bulbs planted. As soon as the young shoots begin to peep above ground harrow the whole patch over both ways. This kills the first crop of grass, is a good cultivation for the potato, loosens the land, and lets in the warm air, and hastens the germination and growth of the crop. When the vines are well up, dress with plaster and ashes mixed, or any dry, fine manure.—Plow with the bar close to the potato, and in a few days reverse the working by running the mould-board next to the vines; then follow with the hoe, killing all the grass in the rows, and levelling the earth about the young plants. Keep clean afterwards by use frequently of the cultivator. When about to blossom plow lightly, so as to throw the earth to the plants, and with the hoe smooth the furrows so as to leave the plants in the center of a broad, smooth hill, slightly dished about the plants. After-work consists in merely hand weeding and keeping clear of grass by use of the hoe. When ripe, gather and send to market. If you desire the largest profit from your sales, cull them closely; make two sorts very carefully—the largest and the medium size. Each bag or barrel should be uniform in size. The small ones feed to your hogs or cows, as they will not pay for transportation. Be careful to do this, and soon each potato grower will have a reputation that will secure him a ready sale at an advance, even from the middlemen, who are the great obstacles in the way of the farmer receiving a fair reward for his labor, and the consumer from purchasing at reasonable rates. Last year, the "middlemen" bought potatoes at 50 cents per bushel, and by the time the consumer got them in the market, he had to pay the same, or at least, 30 cents per peck, or \$1.20 per bushel. So with all vegetables. But if the farmer can nett 50 cents a bushel for potatoes, and has not to haul them over two or three miles to rail or boat, he will find it a profitable crop. Well assorted, fine sized potatoes will, however, bring more, if properly put on the market in July, August and September, for then the large importations from the South will be over, and the crop will not be in antagonism with the heavy influx of winter potatoes, with which the North glutts the markets after October. When the farmer is ready to send his crop to market, he should go with a fair specimen of the two sorts, the large and medium, and make a bargain with some

reliable green-grocer, or retail seller in the market, avoiding all middlemen, to deliver a certain quantity at stated intervals. Then be sure and comply strictly with the terms. This mode will give him satisfaction, and most likely, secure the highest prices.

#### MEADOWS

Which have been in grass a long time, and seem to be giving way in spots, would be greatly benefited, if not renovated, by being re-sown with mixed grasses wherever needed, top-dressed with 7 to 10 bushels of bone dust, or plaster and salt, 3 bushels each, per acre, and harrowed with a heavy, sharp-toothed harrow. This must be done when the ground is dry, or nearly dry.

#### BROOD-SOWS

Should bring their pigs early next month, and be well treated, and kept supplied with dry litter under cover for bedding.

#### SHEEP.

Look well to the sheep now, and take especial care of such ewes as will have lambs this month. In bad weather give grain and good hay, clover hay is best, with a liberal supply of turnips to those ewes which have lambs. Let them have free access to salt, and learn the lambs to eat meal and mill-feed or chopt oats, if you desire to have them large and fat, either for the butcher early or as future breeders. A little extra care and cost will pay a high interest in this matter.

#### YOUNG STOCK.

Feed generously on grain, ground coarse, like small hominy.

#### WORKING CATTLE AND HORSES.

This is a very trying month to working beasts, and they should be well cared for and highly fed, with constant moderate exercise to prepare them for their coming hard labor.

#### MILCH COWS.

Keep these in good order, and give those you are milking a plenty of slops warm, at least, not half frozen. A bucket of warm water with one quart of meal or shorts, stirred in, and seasoned with salt will, if given once a day, increase the flow of milk greatly. Let them, and indeed all your stock, have a plenty of pure, clean water, and access to salt at all times. We have found a mixture of equal parts of salt and ashes, a gill twice a week, very good for stock of all kinds. It may be mixed with their food, or given alone.

#### TREE PLANTING.

Plant out as many Locust, Chesnut, Walnut and Oak trees as you can this month. Prepare the places for setting out shade and ornamental trees,



and shrubbery, next month. Dig the holes, and put in each half a bushel of equal parts of manure and wood's earth, or rotted sods for the trees, and less quantity for shrubs. If you design to plan an orchard, lay it off now, and prepare the holes as above, or if only a few fruit trees, begin now to have the places for them got ready, so when you get them they may be immediately set. In planting nearly all sorts of trees, it is best to trim the branches close, so as to leave a small, pyramidal head, and if very tall, cut off the tops. This applies not to the generality of ornamental trees.

#### PLASTER.

If you have not already done it, sow plaster over the young clover and grain; if 3 bushels of salt were added to 2 of plaster, well intermixed, it would be greatly for the better. Make free use of plaster over your barn yards, hog-pens, in the stables, hen-houses, and over such places where the slops, ashes, and house slops are deposited.

#### POULTRY HOUSES.

White-wash and cleanse with carbolie soap-suds the poultry houses—keep clean, use lime and ashes and fresh earth on the floors of the same, which remove and put in barrels with the droppings of the fowls once a week, and you will be supplied with a valuable lot of the best fertilizer you can get. Feed your fowls with a warm mess of meal and potatoes once a day, with grain of different sorts in the morning and at night. Diversify their food. Provide ashes for dusting themselves, and lime, pounded oyster shells, (coarse bone dust they are fond of,) meat scraps and bread crusts, with meal and husks, mixed and baked in pones. Do these things, and you will have abundance of eggs, and fat poultry for the table. Ducks and geese are hearty and gross feeders.

#### MANURE.

At every opportunity haul out to the places where it is to be used, the manure you have accumulated, and spread it as soon as hauled out, and as soon as it is spread, sow plaster over it to prevent the ammonia from escaping. A light sprinkling will be sufficient, as the sulphuric acid of the plaster will readily arrest the escape of the ammonia as it is given out, and fix it so, by converting it into the sulphate of ammonia, that it will remain with the rest of the fertilizing qualities of the manure, until the crop plants are ready to take it up as sustenance and aids to their vigorous development. See that you provide in time all the fertilizers you may want for your crops. Do not, without experience, buy largely of any one sort, for it may not happen to suit the soil or particular crop, or the seasons may not suit it. Many really excellent fertilizers are condemned on a first

trial, without these causes of failure being thought of. We do not recommend particular fertilizers to the exclusion or detriment of others, but we feel we are at liberty to say what kinds have proved satisfactory to us. Turner's Excelsior we found some years since most excellent for tobacco and corn. Gilham's Tobacco Fertilizer for tobacco; and we esteem Missouri Bone Meal as very fine for that crop. Kainit, or German Potash Salts ought to be good for tobacco, but we never tried it. Whitman's Andrew Coe Superphosphate of Lime is excellent for grain, grass, and root crops. As to farmers manufacturing fertilizers, it may sound well in theory, but it is not practicable, where there is to be accuracy in the proportions, and perfectly thorough manipulation and combination of the various elements of the compound. It is not in the farmer's line. He must depend upon buying from honest dealers. He must try different manures, and see which suits his soil, climate and crops. Then stick to that one, or those, that suit him. The farmer has enough to do, if he will do that, to gather the materials nature furnishes on his farm, and compost them with the barn-yard manures. Here he has a wide field on which he can employ his time, labor and skill. In this work he can use bought ammoniacal matter, and add it to his compost heaps with great advantage. A very cheap manure can be had; we allude to Fish Scrap, which if intermixed with the barn-yard manure at the rate of one ton to ten tons of manure, or one bushel to ten bushels of manure, or in like proportion to the compost heap, would render the home-made manures immensely valuable at small cost, and no skill or science required in the making. We should think a handful of this mixture of manure and fish scrap dropped in the corn or tobacco hill would well repay the expense and labor.

*Fish Scrap* is the refuse or pumice of a kind of fish, not saleable as eatable fish, but caught in great numbers, and boiled for their oil; after the oil is extracted by high pressure, the pumice or refuse, bones and meat are packed for admixture with other materials forming fertilizers, and contribute both ammonia and phosphate, as well as organic matter, of a high fertilizing quality. This same *fish scrap*, dried and ground, forms what is sold as *Fish Guano*—and is no doubt, as far as it goes, an excellent fertilizer, but the planter and farmer only want the cheap fish itself to mix in their compost heaps. An intelligent friend who sells these ammonia and salts furnishing elements suggests to us as a cheap manure, easily composted by the farmer—

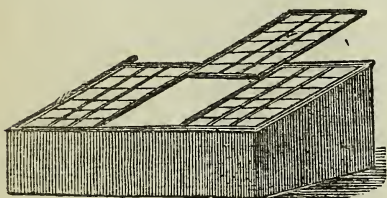
1 ton Fish Scrap.....	\$25.00
1 " Bone Dust.....	40.00
1 " Plaster.....	10.00
1 " Salt.....	10.00
4 tons, cost.....	\$85.00

\$21.25 per ton. Say \$22 per ton for the compost, of which 400 lbs. per acre would be amply sufficient for an acre, and this would only be \$4.40 per acre. Where is so good a manure found at so low a price? This compost can be made easily, and requires no skill or science. It can be the work of rainy days under shelter.

One thing we will say, the farmer can never go wrong in buying lime, ashes, bones, plaster and salt. We would place bones *first*, and lime next, as the best of all manures to use in permanently bringing the land to the highest state of productive fertility.

## GARDEN WORK.

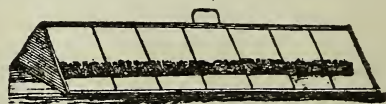
About the middle of the month prepare a hot-bed. Let it stand two or three days until the earth on the manure has been heated through, and the heat has settled to a somewhat even temperature. Then smooth the top of the bed, draw shallow trenches three inches apart, and sow thinly in them, Early York and Winningstadt cabbage, India curled lettuce, peppers, egg plant, Early Red, Sim's Gold Striped Cluster and Trophy tomatoes; radish and beet seeds—cover with back of the rake, press lightly, and water with a fine rose-nozzled watering-pot. Then manage the bed as your experience dictates. As a general thing in the country too little air and too much water is used with hot-beds. The inexperienced must remember if the glasses are left on tight, and not lifted during a hot sun for an hour or so, the plants may be killed by the heat. Hot-beds require close and judicious attention.



COLD-FRAME.

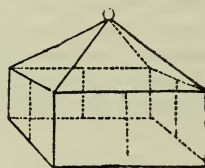
But as the chief advantages of the hot-bed can be secured by what is called a *cold-frame*, and is better adapted to the wants of the majority of farmers, being more easily managed, we give you an illustration of one, as also that of those useful garden conveniences, which not only afford plants shelter from changes of weather, but keep the earth from drying and protect the plants from bugs and insects. They can be made of any size or form. This is simply a hot-bed frame, with sash, as shown in the engraving, placed upon a bed of fine, mellow

earth, in some sheltered place in the garden. By the exclusion of air and the admission of sun, the earth becomes warm, and the moisture is confined, as in the hot-bed. After the frame is secured in its place, a couple of inches of fine earth should be placed inside, and the frame closed up for a day or two before the seeds are planted. As the cold-frame depends upon the sun for its warmth, it must not be started as soon as the hot-bed, and in this latitude the latter part of April is early enough. Plants will then be large enough for transplanting to the open ground as soon as danger from frost is over, and, as a general thing, they will be hardier and better able to endure the shock of transplanting, than if grown in a hot-bed. A frame of this kind any one can manage. Watering occasionally will be necessary; and air must be given on bright, warm days. Shade also is necessary. These frames, when so small as to be conveniently moved by the



LONG HAND-GLASS.

hand, are called *hand-glasses*. A simple frame or box, with a couple of lights of glass on the top, will answer a very good purpose, though when small it would be better to have the front of glass. A very good hand-glass is made of a square frame, with a light of glass at each side and on the top.



SQUARE HAND-GLASS.

To garden successfully, one rule should not be lost sight of, that is, *rotation of crops*. Some vegetables are impatient of change of soil, some will not do well if planted in the same place oftener than once in three or four years. Peas and cabbage especially will not flourish if planted in the same bed, the following year. The vegetables which follow each other in rotation should be as dissimilar as possible. Another rule is, manure very highly, and keep the grass and weeds from even showing themselves.

*Asparagus*.—Now is the time to set out a bed or beds of this excellent, indispensable vegetable—200 roots are enough for a single family. Get *Conover's Colossal Asparagus*. It is fine,



As soon as the ground is in good working order, embrace the opportunity to sow onion seed, plant onion setts; sow peas, Tom Thumb and Laxton's Alpha; parsnip, carrot, Egyptian beet, or Bassano, beet, salsify, spinach, radish, and snap-beans, three inches deep. These last, after the middle of the month. We have named some of the different vegetables because they are our favorites, after trials with many others. It may have been they suited our locality and soil better than others with which they were tested.

*Potatoes.*—We have said all we desired about the culture of this indispensable vegetable in our reminders as to the Work on the Farm for this month. If planted in the garden, they should be at once, and in flat hills only 2 inches deep, with a shovel full of long manure on top of each hill, besides well rotted manure under the potato. This mulch will keep off the frost and cold, and the tubers will sprout much sooner.

*Corn.*—If the weather is suitable, corn may be planted the latter part of the month. The best table corn is the wrinkled sweet varieties. Darling's Early Sugar is one of the best, so is Crosby's.

*Lettuce, Early Cabbage, Spinach and Kale.*—These which were set out last autumn may now have the bushes or brush, or mulch with which they have been protected, removed and the plants worked; the missing ones replaced from the seed beds, or by the plants drawn out where they are too close together, and then return the brush or mulch. It would be well to dust the plants, after working them, with a mixture composed of two parts plaster, two parts leached ashes, one part soot, and one part pigeon manure. The latter is very powerful and valuable manure for the garden.

*Seeds.*—Every person who intends having a good garden this year, should now get the catalogue of some reliable seedsman, and carefully select and procure all the seeds they may want during the spring. Among the novelties of garden seeds this year we notice the Extra Early Vermont potato—the Arlington tomato—Fleming's Early Autumn Cauliflower—Mc'Lean's "Blue Peter" pea, dwarf variety, not over six inches high, and said to be very prolific and of fine flavor. Also, "Toony Qua," a new variety of vegetable marrow, but superior, and said to grow to a weight of from 20 to 70 lbs. It comes from China.

A LADY correspondent of *Hearth and Home* says she cured her fowls of the habit of eating each other's feathers by giving them sour milk to drink, mixing in with it a little salt.

**Specimens.**—Specimen copies of the *Maryland Farmer* sent FREE to any address.

*For the Maryland Farmer.*

## PLANT FOOD.

In this matter of plant food the whole question of agriculture lies. All living things, animate or inanimate, live by food which they collect and assimilate, each in the peculiar means ordained for its class. The number of substances which form the staples of plant food are by no means numerous, though widely varied in form and condition. Though nearly all of the simple substances known to science enter into one or other forms of vegetable life, some are used in such slight quantities, that though they are necessary to the existence of that particular species, the soils from which they are drawn seem to contain a practically inexhaustable supply, as for example, iron, alumina, silica, and many others, so that the practical farmer need not take them into consideration in his selection of manures. These substances which he is called upon to add to his soil to prevent its exhaustion of plant food, are comprised in a few items: carbon, water, (oxygen and hydrogen,) phosphoric acid, nitrogen in the form of ammonia, potash and soda, may almost be said to embrace the whole.

It is in the application and manipulation of this food so as to present it to the plant, so to say, in the most digestible form, and in the quantity and quality that the crop requires, and to the extent to which the soil is deficient, that the art of the gardener or agriculturist lays. The cultivation of the soil, the distance at which the plants are placed, the cleansing from weeds, and all other arts employed, have this one object.

Unlike animal life, which selects its food in the grass, and digests it by means of its interior organs, rejecting the exuviae. The plant carefully selects its food by means of its out-spread roots, and by the subtle chemistry of nature, seizes upon and assimilates all such food as lies within its reach in a fit condition for its nourishment. To facilitate this process, and to provide suitable food, is the first object of cultivation. Besides the action of the roots, the leaves provide a very large portion of the food upon which the plant lives. In all cases this forms a very large portion of the food of plants; and in some, as in the air plants of Brazil, the plant food is derived entirely from the air, though nature has provided them with roots, they are so constituted as to bear their part with the leaves in assimilating the water and carbonic acid from the air in which they live; they are also the store-houses in which the food is retained to make in due time its great effort of pushing out its flowers and maturing its seed. Assuming that the soil contains all the necessary constituents of the plant



in sufficient quantity, it remains for the agriculturist to so prepare and cultivate the soil, as to give the plant the fullest opportunity of absorbing this nourishment. Now this facility, first of all depends upon the extension of the roots, and secondly, on the expansion of the leaves; this latter condition depending upon the former. To produce the greatest growth of root, it is necessary, first, that the food constituents should be placed so as to be easily reached by the first feeble efforts of germination; secondly, that the soil immediately surrounding them should be made friable and permeable, so that the roots should be able to pierce it, and thus obtain a larger area, to forage from. It is a singular fact that so far our scientific researches have only served to confirm the correctness of the method of cultivation employed for ages by a semi-civilized people, arrived at by experiment alone, without any chemical knowledge.

The husbandman of Japan, owing partly to the paucity of large mammals in that group of islands, has been forced from all time to be extremely economical of manure; he never thinks of broad-casting or of plowing in his fertilizer; his first effort is to reduce it to the best possible condition for plant food. To this end he places all the manurial products which he has collected into barrels or vats, and fills them up with water, and stirs them up till they are so thick as just to drop from the stirrer. In this condition they are left to ferment, and day by day they are stirred till all evolution has ceased. In this process an acetaceous fermentation takes place, and by the time that it is completed, there is no trace of acid left, it having by new combinations entered into the composition of salts of different kinds. In this condition, if too thick, water is added, till it will just run as street mud will when thrown into a heap. He then makes holes in the ground, at proper distances for the plant he proposes to cultivate, and fills them with a ladle; into these holes the seed or plant is placed, and the hole covered with the hoe. There is no waste of manure—enough is given to start and support the plant in the most vigorous growth, and he takes care to facilitate the expansion of the root by assiduous culture. All weeds are carefully extirpated, as they would otherwise absorb the moisture, and rob the plant of its food, as well as obstruct the roots in their growth. In annual plants, as for example in the cereals, the first period of growth is spent in forming the roots; the second is devoted to the leaves and growth above ground, whilst the third is employed in the formation of the flower and grain. It is a fact well known to farmers, that in the case of wheat, too open a winter, inducing a rapid and early top growth, is injurious,—

Many causes are assigned for this; but the true one is that the top growth having sprung up too early, sufficient time has not been given for the formation of vigorous roots; the result is that a weak stalk, and small and poorly filled head is all that rewards the farmer for his care. In England, where this fact is well known, it is the practice to turn stock, particularly sheep, on such grain fields in the spring. This has a double result. When the land is light, it is trodden into a firm consistence, which is the most favorable condition for wheat; it also checks the top growth, and gives the root time to expand, and so to provide digestive organs and storeroom fit to produce strong and healthy plants, and well filled grain.

Well developed roots enable the plant to draw its moisture as well as its food from a greater distance, and so to be able to withstand the droughts, so common in this climate, with greater success, and thus prevent the drying up of the straw before the grain has received its full quota of nourishment. In some parts of England it is found profitable to hoe the drilled wheat between the rows, so as to enable the soil to absorb moisture, and at the same time to destroy the weeds. In this case the root performs the function of a store-house or stomach for the plant, reserving the phosphates and other grain constituents, until the plant begins to perform the great function of its existence, *i. e.*, to push up its flower stalk and measure its grain, then all its resources are required, and according to the store accumulated in the root will the head be large or small. Not only the food collected by the root, but a considerable portion of that collected by the leaves from the air, is reserved in this store-house till the moment it is required. Thus it is shown that when crops are cut or eaten off, before the flower shaft pushes, little is taken from the soil; whilst if the same crop is cut when ripe, the whole plant food which the root and leaves have collected is taken away, and nothing remains but a little crude carbonaceous matter in the dead roots.

A. T. W.

[TO BE CONTINUED.]

**HAY MITES.**—Some time ago, there died a large number of horses in Nordheim, Germany, from inflammation of the intestines, the true cause not at first being known. At last it was assigned to the hay, in which, upon close examination, an immense number of microscopic animalculæ were found.—They belonged to the genus *acar* *fanarius*, to which genus the mites living on dry fruit and in cheese also belong. In times of horse diseases it might, therefore, be proper to microscopically examine hay and straw, since even the best fodder, if stored in a damp place, is very likely to be infested by those and other parasites.

*For the Maryland Farmer.*

# A VARIETY OF STATEMENTS AND SUGGESTIONS ALL IMPORTANT TO THE FARMER.

NUMBER FOUR.

*Messrs. Editors:*—By the time this No. of the *Farmer* reaches its readers, many of them will be actively engaged, some in putting in the early spring crops, others in preparing the ground for them. It is to be hoped that all have systematized the work of this year, and prepared the pocket, farm, guide book, which I recommended to the readers of the *Farmer* more than a year since.

Those who have done so, will find infinite advantage in it; for no business consisting of the variety embraced in the detail of a well conducted farm, can be managed with the greatest degree of profit, unless a thorough system is inaugurated and faithfully carried out.

At the risk of incurring the displeasure of some who may read what I have now to say, who have no doubt long since branded me *old fault finder*, I purpose to be plain and unreserved in my effort to call the attention of the farmer to some errors in his practice, and to suggest improvements and reform that will certainly result profitably, if heeded.

If my instructions have been carried out, all the farm-yard manure that it is proposed to apply to the land designed for corn the current year, will have been applied as it accumulated, on the surface of the land, and as great a length of time as practicable before it is to be turned under. For the benefit of the large number of new subscribers obtained since the article to which I allude was published, I will repeat some of the advantages which I claimed for this system.

An experience of 40 years in applying long manure of the farm to sward fields, to be put in corn, and in applying it three months to a year previous to breaking up the land, has thoroughly satisfied me that no other use of such manure, nor any other mode or time of applying it is so profitable.

The effect of manure so applied on land in grass, is to promote a very vigorous growth, not only of grass, but the weed seeds lying near the surface are, by the shade and protection, and fertility supplied, caused to germinate and grow luxuriantly, and hence contribute greatly to the increase of the amount of vegetable matter to be turned in with the grass.

## False Economy.

On several occasions I have recommended to my patrons this mode of applying manure, and it having produced such an extraordinary and exuberant

growth of grass, as well as weeds, they felt that it would be an unpardonable waste to turn so large an amount of vegetation under, on which stock, perhaps at the time on short allowance of cured forage, would subsist so luxuriously—hence all the stock was turned upon the land, and every blade and bud of herbage was gnawed into the ground.

The early growth of vegetation, such as I have described, contains a very large percentage of water, and a very small amount of nutriment.

The sudden change of animals from dry forage to green food alone, of such succulence, has the effect of a powerful cathartic dose of medicine, often producing injurious effects so severe that they will scarcely be recovered from in a season. It often occurs that animals thus treated, when they have devoured the new growth, that should have been plowed under, are again returned to dry forage and confined to it until the later pastures have attained a growth suitable for grazing. The effect of these transitions from one character of food to another, so unlike, is very disastrous, especially on cows, which I have known to abort as a consequence; thereby impairing the value of the cow permanently, ten fold more than the value of the forage saved by turning her out to graze on herbage in such a succulent and unmaturing condition, and entirely withholding the hay previously fed, in order to realize the most from the grass before it was turned in; and in a few days returning the animal to dry food alone again.

The value of the vigorous growth of vegetation promoted by the system recommended on the corn crop particularly, is very great.

The corn may be planted as soon as the land is plowed and put in order, and the injurious effect of the cold weather and cold storms, such as would cause the seed to rot in the ground, may, to an astonishing degree be averted. The succulent vegetable matter turned under in large quantity, begins to ferment at once, and produces a degree of heat and dryness in the soil most favourable to the germination of seed, and vigorous growth in the delicate stage of incipency.

By turning in weeds in so early a stage of their growth, no seeds have been produced, and all seeds that laid near the surface are germinated and destroyed—besides, the seeds mingled with the soil of the bottom of the furrow, when they are brought up near the surface, soon give striking evidence of the vitality developed in them by the joint influence of direct solar action, and the heat generated in the soil by the fermentation described.

The early tillage of the crop will destroy this growth, and the rapid growth of it will cause it



soon to occupy the ground to the exclusion of spontaneous vegetation.

Hence, it will be seen that numerous advantages are desirable from the mode of applying manure that I have recommended. The destruction of the vitality of all the weed seeds in both the upper and lower surface of the soil inverted in tillage—the hastening of decomposition of the roots of the sward, as well the manure in the form of that applied, and that grown on the land, the latter not unfrequently equaling in value that applied—the early starting of the crop, and a corresponding early maturity of it, through the liberal supply of well resolved food in the soil, and the realization of the greatest benefit possible from a given amount of manure; whether separately, or collectively considered, possess an importance that the husbandman cannot afford to lose sight of. Although I have claimed many advantages to be derived from the course recommended, I have omitted to mention two scarcely less important than any two enumerated. Land mulched with long manure a proper length of time before it is to be plowed, will require perceptibly less power to plow it; and in case of the occurrence of a drought of sufficient severity to cause the land to break up in lumps, it will be found that the mulched land, will retain moisture and break up in a friable condition, several days after the unmulched land of same natural character will be lumpy.

Deeming this matter of such importance to the farmer, is my reason for considering it at such length.

#### **The Importance of Good Seed.**

I often hear careless, "*not at home*" farmers say that their grain, grass, &c., "*has come up badly*"—and it is generally ungratefully attributed to "*the season*," to Him who sendeth "*the early and the latter rain*," and who gave us the blessed "*bow of promise*," when the facts in the case, as I have frequently proved on investigation, are, that the seed has been from various causes, worthless.

I have often urged upon my patrons the importance of testing all seeds used.

It is attended with very little labor, is very interesting, is a source of great satisfaction, and withal, may, and has often saved very serious loss. The seed to be tested must be carefully sampled, that the test may be of all the seed to be used, and not of a portion of it.

My favorite mode is to place cotton, say an inch in thickness, on a plate, (a dining plate is convenient,) then sprinkle the seed to be tested on the cotton, so thinly that each seed may be distinctly seen, then supply and maintain a sufficiency of water to keep the cotton moist, and keep in a warm dark

place until the seed has had time to germinate, when the proportion of imperfect, or worthless seeds may be readily detected.

It is better to cover the plate with a pane of glass, as it maintains a uniform, moist atmosphere over and about all the seeds.

#### **"Bad Luck with Calves, Lambs and Pigs"**

is so common, and results in so great an aggregate loss to the stock men of the country, that I may profitably devote some space to the subject. The sow, wintered at no little expense, is pregnant, and instinctively leaves her quarters, if not such as she likes, and she is not confined, and seeks a congenial lying in bed.

That most preferred by Mrs. Hog on such occasions, if obtainable, is some unfrequented, warm, protected nook in the woods, a place in which leaves naturally accumulate, and from which solar warmth is unobstructed.

I have known a farmer who owned a fine brood sow, to neglect her, until she went to a wood a half mile from the house, and there delivered her young; and it being unfavourable, the pigs all froze to death. In speaking of the incident, he calls it "*bad luck*." "*Bad luck*" to such a man, I have not the patience to discuss his careless, slovenly, negligent ways, and can only offer him as consolation, a wish that he may have more of it, until he learns and performs his duty.

#### **Twin Colts.**

I once knew one of that numerous class of "*bad luck*" "*not at home*" farmers, who had a fine mare, which he had taken to winter for a gentleman of the city, whom he had thoroughly impressed with his skill as a veterinarian, for, of course, he was born a horse and cow doctor, and he was to give the mare his personal and valuable attention before, during, and after the period of parturition—but "*he had bad luck*." To save hay he turned the mare in a low, early, swamp pasture, too far from the house for him to see her often, and the consequence was the mare was delivered of a pair of bay, horse colts, for which the owner would scarcely have taken a small farm; but there was no redress, Mr. "*bad luck*" could not make good the damage, and if he had the means so to do, he could not think of it, as it was purely a plain case of "*bad luck*." To what a wonderful extent it would depopulate the world, if we were to remove all of whom it might well be said, "*it were better if he had not been born*." If those legionary classes the "*bad lucks*," and the "*not at homes*" were to be removed from the agricultural districts, their loss would be but slightly felt and less lamented. Truly yours,

J. WILKINSON,

Landscape Gardener, Rural Architect, and  
Consulting Agriculturist, Baltimore,



## HORTICULTURAL.

### CENTRAL DELAWARE FRUIT GROWERS' ASSOCIATION.

At the annual meeting of this association, held in January last, an address was delivered by the President, John W. Causey, Esq., in which he discussed the subject of fruit growing, and especially the high tariffs exacted by the Railroad Companies from the producers, which diminish the profits to unremunerative figures. After speaking of the great usefulness of their organization, and lively interest manifested by its membership in its transactions, he said:

"Another feature of our society that has been an important element of its success is its diversity of objects—covering the whole catalogue of fruits, and thus appealing to *all growers* of fruit to lend it their aid and co-operation. Most other societies have given all their attention to the single article, Peach. While other societies have at their meetings had formal, long and prosy addresses, with formidable arrays of dry statistics and scientific theories elaborated by impracticable men, resulting in no practical benefit, our association has enlisted the service of practical growers in every department of horticulture, and our meetings have been made profitable by the exposition of facts evolved from actual experience. In regard to the fruit interest generally, Mr. C. dwelt at some length upon the significance of the fact of the great diversity of opinion upon the profitability of the business—a few claiming it to be very profitable, while many found it difficult, on account of the high freights, to make both ends meet. From this it is deducible that only the best managers, and those who happen to be in a position, by virtue of favorable location or large crops, to get better terms from the R. R. Companies, really find the business profitable, and feel encouraged to extend it. The discrimination of carrying companies against peaches is unfounded in reason, justice or common sense. While they charge but 14 cents to carry a hundred weight of corn, 28 cents is charged for a basket or crate of peaches, and this is a tremendous difference; and although many ingenious arguments are advanced to justify it, the R. R. officials can really give but one valid reason, and that is the taunting one that they charge thus because the shippers have no other means of getting their fruit to market, and are therefore obliged to submit to the heartless exactions."

After the address the chairmen of the several committees submitted written reports upon the subjects assigned them for their consideration, which we deem of sufficient interest to a large class of our readers to publish, as they are papers eminently practical.

#### On Peaches.

Mr. Alexander Pullen, chairman, submitted the following:

Peaches are yet the great fruit interest of Delaware, but the increase in orchards is not so rapid

as formerly—attention being more directed to pears, small fruits and vegetables.

The annual value is uncertain, yet a crop may be relied upon three years in five, and the returns are as certain as for wheat.

We would make the following suggestions to peach growers:

- 1st. Open new markets.
- 2d. Ship only first-class fruit.
- 3d. By unity of action send to distant markets without breaking bulk.
- 4th. Encourage canning and drying establishments.
- 5th. Patronize commission men only, and not men that buy and sell on commission. The one is a commission dealer—the other a speculator.

Regarding the peach product of the Delaware Peninsula during the year just passed, the columns foot up to the grand total of 3,491,050 baskets—these representing only actual shipments by rail and water. There were 73,283 baskets used by canneries, and 10,000 baskets consumed in the city of Wilmington; to these are added two important items, namely—those distilled into brandy, and those sold for consumption in the several towns on the Peninsula outside of Wilmington, all of which it is calculated will bring the total up to 3,600,000 baskets. Applying to this quantity of fruit the average price of 40 cents per basket, realized clear of freight and commission charges to the peach growers, the total return to the Peninsula for the last year's crops was \$1,440,000. Truly a large amount for a single variety of fruit in a single year.

The utmost care is necessary to preserve the health of young peach trees before they are taken to the orchards, as infectious diseases are disseminated in various ways—through the seed, through buds taken from unhealthy trees, and especially from exudations of decaying roots in the soil from which peach trees have been removed. Therefore to succeed well the seed should be pure, the buds vigorous, and the trees to be grown on land where peach trees never grew before.

It is to be much regretted that through the desire to produce peach trees for sale, so little regard is sometimes paid to those conditions which are indispensable for the future success of the trees. Some cultivators, either from the want of room, or through ignorance of the peculiar character of peach trees, plant repeatedly on the same land, thereby engendering diseases in the young trees from which they can never recover.

The peach trees cultivated in orchards here usually live from 20 to 25 years, and have been known to live 40, and even 50; while in New Jersey, where peach trees are cultivated extensively for sale, orchards planted live only from seven to ten years.

#### On Apples, Pears and Grapes.

Mr. E. Hopkins, chairman, submitted the following:

Your committee to whom was committed the subject of Apples, Pears and Grapes, beg leave to report that they are of the opinion that early apples are the most profitable varieties for this vicinity, as the later varieties come in competition with the finer ones from the North and East; but a little preservation will lengthen the time of keeping many varieties for several weeks. As proof of that

statement, one of our committee has now in possession in good state of preservation that fine apple known as the Maiden's Blush, which is cultivated to some extent in this country; and the committee are of opinion that that fine flavored apple could be very profitably put up in cans, and would be as saleable as peaches in certain sections. We would say that good refrigerating houses would extend the preservation far enough to make the growing of later varieties more profitable, and put us in possession of that first of all fruits at a time of year when but few indulge to any extent to the benefit of health, and the expulsion of so much hog and hominy. The crop was disposed of this year at low prices, and is not calculated to encourage the cultivation of many of the middle varieties.

#### Pears.

Pear culture has received a new impetus of late, and bids fair to be extended far beyond any former undertaking of the kind. A few thousand trees have been planted of late, and as the influence of one acts upon another, we may with reason soon expect to see pears shipped to market beyond the amount of apples now going there; for the same rule in preference to apples does not hold good in the pear trade, as there is not that difference in the time of ripening pears, between the North and this State, as there is in apples. A winter apple tree from the North planted here becomes a fall variety, while the same variety of pear, though ripening much earlier than Northern fruit, does not lose its character as much as an apple. The committee feel warranted in saying that they have never known any locality where pears do better than here, both as to health of tree and quality of fruit. They would recommend for orchard culture Standards only; and if any Dwarfs are resorted to, plant by themselves—as a plantation of a mixture is very unsightly to a pomologist. Buerre Giffard and Washington have proved well for early; Bartletts are always in order. The Seckel never blights, which is an important consideration. White Doyenne has failed North, and is improving here.—Belle Lucrative should be cultivated on its own merits, though not so saleable for want of color.—Howell has done well. Buerre d'Anjou has not fulfilled the expectation, as its leaf blights some, though it is very good. The Butter, though not much known in the market, has borne large crops, and stands as high as any others, which is the main point. The Vicar, a second-rate pear, grows to a large size and keeps well, bears good crops on the handsomest tree in the orchard. Duchess always a favorite in the family. Buerre Clairque has held its leaves well and borne fine, handsome, large fruit. Now we feel that one thing is lacking to make pear culture a success, viz: that refrigerator spoken of. Keep your Bartletts four weeks and you will receive double price. One thousand Bartlett trees ten years old will produce at least one bushel per tree; kept back four weeks, you will get \$3.00; at fifteen years old, twice that amount will sometimes be realized. One dwarf Vicar this year netted \$4.00 on a seven-year-old tree. Some Bartletts have produced for five years an average of twenty dollars per tree. One Seckel produced fifty dollars in N. Y. It is recommended that a special committee be appointed to investigate the feasibility of building refrigerating houses for keeping fruit.

#### Grapes.

The subject of Grape culture, though last in our report, is not least in importance though in this State it is in its infancy, and scarcely anything has been done in comparison with some other parts of the United States, if we should not mention the kingdoms of the Old World where for thousands of years attention has been given to this industry.—The varieties that have been proved most successful here are the Concord and Hartford prolific—the latter variety with some has dropped from the vine more than was desirable, yet with others that complaint was not made as they received in Philadelphia 16 cts per lb. The Diana has done well, as also the Ives' Seedling. The Clinton is grown to a limited extent, but because of its small size and acid taste is not valued as a market grape, though it contains three and a half per cent. more sugar than the sweet little Delaware, yet the superabundance of Tartaric acid fits it for a good wine grape. To prevent mildew, it has been found necessary to use sulphur about three times during the growth of the fruit, first soon after the fruit is formed, then again when it is the size of large currants, and lastly before the grape takes on its color. Three pounds of sulphur to one quart of lime, and ten gallons of hot water, mixed and applied with a brushbroom when cold, makes a good composition: or dry sulphur applied with some dusting implement, or what is better, a pair of bellows made for that purpose. Hillsides are the best locations, and vines trained on trellis the best mode of culture. The committee feel that the Grape question has not had its full share of attention in our deliberations, when we consider how extensive the business is prosecuted in other States and Kingdoms where the cultivation of the vine is one of the chief industries. We ask your indulgence when we refer to what is done in France only, without enumerating that industry in Germany, Italy and Spain, to say nothing of our own California. Dr. Jules Guyot, an authority on wine and vineyards, writes that the vine covers 2,500,000 hectares or about 6,250,000 acres of ground, about the 20th part of the French territory, and 16th part of the cultivated land. Its raw product rises to more than 1,500,000,000 francs, or about \$300,000,000 in gold. It supports, 6,000,000 cultivators, and nearly 2,000,000 tradesmen, manufacturers, transporters and merchants. In forty eight Departments, the vine produces not less than one quarter of the total agricultural revenue, and keeps more than a fifth of the population; and in seventy Departments its products are three to six times greater than all other products, and we are enabled to see by this statement that if every acre of ground on this Peninsula was one vast Peach orchard and the prices ranging as they do now, that the products would not amount to one-half of the product of the Grape interest in France alone.

#### On Small Fruits.

Mr. R. H. Phelps, chairman, submitted the following:

The committee on Small Fruits respectfully report that they have estimated the number of acres of Strawberries in bearing in 1872, the shipping point of which was Milford, at 70 acres; and the amount which will come into bearing the present season (1873) at about 138 acres; making the surprising increase of acreage of 100 per cent. We



have ascertained that the total shipments of Strawberries from Milford station last year were 154,000 quarts, which gives an average yield for our estimate of 70 acres of 2,200 quarts per acre.

We have ascertained the opinion of many of the growers, that the nett profits above picking, freight and commission, will average about 8 c. per quart. From this can be deducted the interest on the land, the manure and labor in tillage, of which others can form their own estimate. We have ascertained from a competent source at Lincoln that the amount shipped from there last season was about 20,000 quarts, the product of about 20 acres; and the present season there will be an addition of about 5 acres to that amount. Though last season was not favorable to this crop, yet we are of the opinion that the nett profits per acre over all expenses were in some cases more than the actual value of the land on which the crop was raised, and though this statement may not be sufficient to brag of as to the value of *some* of the land, yet we are of the opinion that the crop pays far better in this section than the old fashioned products usually raised.

Raspberries yielded fair the past year and brought good prices, but the amount annually raised we have not ascertained.

Less attention is paid to Blackberries in this section where such quantities grow spontaneously, and we do not advise extensive cultivation of them to the exclusion of other fruits, which pay better; we would except, however, Wilson's Early, which ripens before the peach crop, and last season brought very satisfactory prices.

Some attention is beginning to be paid to Gooseberries. They are free from mildew in this section and promise well.

In conclusion, as your committee are somewhat limited in their subject on which to make a lengthy or interesting report, they may be allowed to adopt the old adage that "a short horse is soon curred," and we will offer our particular advice to growers of small fruits or large fruits, to *raise larger crops on less land*; and for this good piece of advice we we charge nothing.

#### On Crates, Implements, and Fertilizers.

R. H. Gilman, submitted the following:

Your committee in presenting their annual report congratulate the society that there has been substantial improvements in the articles that they have in charge.

The mechanical genius of the country is becoming alive to the importance of the fruit trade, and are endeavoring to furnish us with more conveniences and cheaper packages. There has been a marked improvement in crates and baskets, and our best square baskets are now manufactured in Delaware.

The question of round or square baskets has been fully discussed, each kind has its advocates, but on one point they all agree; that *good fruit* in neat, well filled baskets, let them be round or square, brings the best price. So throw away the old dirty baskets, give the small berries to the pigs, and we won't hear so much complaint of low prices.

We would say to inventors that we need a good crate lock, strong and cheap, that will fasten securely, open without a key, and be more out of the way than the hasp and staple. We believe if any one has a lock of this kind it would pay them to bring it before this society.

We would recommend fruit growers to ship their peaches in heavier, neater crates than are ordinarily used. We have understood that our peaches are frequently unpacked in New York, put up in smoother, stronger crates, and sold at a large profit. There was a crate made at Lincoln last season that we believe would add considerably to the value of fruit shipped in it.

The subject of manufacturing our own phosphates, has been agitated the past season, but without any result. We doubt if it can be done by farmers to advantage; but we may congratulate ourselves that we have a manufactory right at our door where we can procure a good article at a reduced cost. Without discouraging the use of phosphate and bone, we would remind you that the main dependence of a farmer ought to be his home manufacture. Keep your barn-yard full, no matter with what, so that it is capable of being converted into plant food; save the soapsuds, leaves, weeds, etc.; have them all composted with anything that will add richness to the mass, then when you have saved everything at home it will be time enough to fall back on phosphates.

If the manure that goes to waste every year in this county was properly cared for and applied it would make our sandy deserts blossom like the rose, fields of grain would take the place of pine thickets and sedge, and our State come out a diamond of the first water.

After the reading of these reports the association proceeded to the election of officers for the ensuing year, with the following result: President, E. Hopkins; Vice-President, R. H. Gilman; Secretary, W. C. Davidson; Treasurer, H. B. Fiddeman.

We are indebted to the *Peninsular News and Advertiser*, for the above.

For the Maryland Farmer.

#### THE POTOMAC FRUIT GROWERS' ASSOCIATION.

##### EXHIBITION AND DISCUSSION OF THE APPLE.

This Association held its February meeting on the 4th inst. in Washington, D. C.

The special feature of the meeting was the exhibition of Winter Apples. On the table were the Wine Sap, Limber-twig, Abram, Tewksbury, Winter Blush, Grindstone, Carthouse, Fallow-water, Albemarle Pippin, Willow-twig and Pomme d'Api. The apple list, from Abram to Willow-twig, was discussed by a number of experienced fruit raisers, among whom were Wm. Saunders, of Washington; J. H. King, of Montgomery county, Md.; Chalkly Gillingham, of Accotink, Va.; Judge J. H. Gray, a successful fruit grower at Falls Church, Va.; Dr. Snodgrass, late President of the New York Fruit Growers' Club; Col. Chamberlin, of Loudon, and Col. Frank J. Bramhall, of Harrisonburgh Va.

The President, Chalkly Gillingham, read his inaugural address, thanking the society for his reelection, reviewing the ground gone over, and al-



luding to the promising future when a perfect knowledge of fruit-culture shall be widely extended, and our hills and vales be covered with trees and vines borne down by yellow and purple clusters.

The discussion on Apples was of especial importance.

Mr. Saunders first said: "Our exhibition of winter varieties of apples is not as large as I hoped it would be, yet some very fine apples are here. The sparseness of varieties I deem owing to the great mistake of Southern cultivators of years gone by, of getting their apples from the North. There are very few exceptions to the rule that the Northern Winter Apple is a second rate Fall Apple here. You will find in a few years that the best Winter apples will be those originated in Georgia and the Carolinas. What I said years ago I am every year more firmly convinced of, namely, that the Potomac Region will one day be the apple region of America."

The President—"This was the opinion of A. J. Downing himself, who said at the Richmond meeting of the American Pomological Society, that Virginia seemed to him to be by nature intended as the very Paradise of the apple. We must take care to get new varieties, and test them carefully; at the same time to keep a vigilant eye upon the insects and diseases which injure the trees, and by timely attention keep them in subjection."

The following are some of the apples discussed with a summing up of the remarks.

- Abram*—Good keeper; poor quality.
- Abemarle*—Good quality and keeper; poor bearer.
- Boling's Sweet*—Good keeper; quality doubtful.
- Carthouse*—Fine grower, bearer and keeper.
- Smith's Cider*—First class in every respect; early winter.
- Cullasaga*—Good in North Carolina.
- Couch*—A Southern Virginia seedling—winter—recommended.
- Domine*—Good bearer, poor keeper.
- Fallow-water*—Good flavor; rots badly; January.
- Grindstone*—Highly recommended from Loudon county.
- Harrison*—Large and good.
- Limbertwig*—Of doubtful value; good keeper.
- Milan*—Highly recommended for the Valley. This and *Grindstone* very profitable.
- Mitfield and Halladay's Seedling*—Virginia; recommended.
- Nickajack*—Georgia; good grower; recommended.
- Pudding*—Virginia; not handsome, but good keeper.
- Winter Paradise*—Good, reddish green; well spoken of.
- Rawles Genet*—Prolific, good; should be thinned.
- Priors Red*—Southern; popular.
- Royal Russet*—Virginia apple, early.
- Shockley*—North Carolina, winter.
- Lady Apple*—Very profitable; bears well in the Valley; poorly below.

*Thick-set*—Seedling from Southern Virginia.

*Winesap*—All united in praise of this apple.

*Virginia Late Keeper*—Good in February.

*Tewksbury Winter Blush*—Handsome; good quality; bears well; keeps well; sells well.

*Willow Twig*—Speckled; dark red; spicy; January.

The following are Southern Winter Apples not discussed: Hoover, Cowan's, Oconee, Yates Stevenson's and Lanier. Information is desired on these apples.

J. T. Bramhall, of Falls Church, showed a can of Jersey Sweets put up in '71 that were equal in color and quality to quinces.

At the next meeting the Apple will be resumed.

HOLLYWOOD.

## CAN OUR FRUIT BE SENT ABROAD?

To the Editors of the Maryland Farmer:

A Baltimore paper informed us a few months that a trial had been made of a patented (?) process of keeping fruit by wrapping in a prepared paper. A box of peaches had been sent to the Queen of England with the respects of the patentee. Has anything been heard yet from that crate of peaches, or any other lot similarly treated? If successful, it, with the Alden process, opens a wide avenue for the disposal of our fruit, and encourages us to go boldly into fruit raising. Last year apples were disgracefully wasted in this land of plenty. Some enterprising dealers took advantage of the glut, and during the first half of October, 8,700 barrels of apples were shipped from New York to foreign ports.

The London *Garden* notices the arrival of a lot of American Pippins, Greenings and Spitzenbergs in fine condition, and the *News* speaks of the scarcity and high price of that fruit. They probably sold at about 30s or 35s per barrel. Dr. Sylvester, of the Western New York Horticultural Society, estimates the apple crop of New York last year, to be worth \$3,000,000, or 2,000,000 barrels. Yet oranges can be bought in New York cheaper than apples. He had shipped apples to Glasgow in good condition. He came to the conclusion that the apple growing in New York was not over done. I would add in a different sense that fruit growing is only half done. That is care not taken to raise the best fruit. A No. 1 is the sort that will always command a ready sale. Inferior fruit is quoted at "what they will bring."

While I ask you for information about this process of sending the more perishable fruit abroad in a fresh and sound state; I would add that I think the facts before us, warrant us in advancing boldly in fruit culture, the more especially as we have a soil and climate if not always favorable to grain raising, exactly adopted to the culture of the most important fruits of the country.

HOLLYWOOD.

For the Maryland Farmer.

## MR. JILKS ON FARMER'S CLUBS.

### ABOUT MILCH COWS.

#### NUMBER II.

*Mister Editor* :—If I rekollect rite, I was to let you kno how, in mi opinion, farmers could jine heads successfully, and wat tha could accomplish by such jint action. Let us take one case at a time: the cow question. One ov mi nabors a few miles off kept four or five cows, and sold only eight pounds of butter a week; another, with the same number of cows, did sometimes sell twelve or thirteen pounds. I am stating facts, not fancies. Last fall I was short of hands, and stepped over to a neighbor's, two miles off, to hire his boy. I walked up to his pasture, and found the milk-maid sitting down by the bars, waiting for nabor Korker to drive up the gentle kine. You see, I am always on the lookout for adventur and information, and those things, and to git tew it you have to pump. Sez I, when I see nabor K, komin across the fields with three or four head, "Why, you must make az much az five pounds of butter a week out ov so menny hed of kattle." "Last week we did it," sez she, triumphant like, for she spoke quick an' exultingly, "but this week we made only three." Them iz all solem facts. Now, there is plenty of cows in this country that give from six to fourteen pounds of butter a week. It's no use fur enny reader to say, "I don't b'leeve it," fur I could produce the names and dates in a court of law, ef necessary, (I'm not goaking; I never do goak on questions of fact, jest to tickle people, an' leave em in doubt whether you are in earnest or goakin, altho' the fellers down at the store set up an orful laugh when the *Farmer* kum last month with mi piece in it,) and I had a cow that made about twelve pounds a week, and sold more butter from her than them that was milkin' four times az menny hed to do it, and the people that's got them big butter cows are doing it not from one or two exceptional cases, but from a herd; and moreover, the calves of that herd, wen they git to be milked, are jes az good milkers az their mothers, and wen the best milkin' animals are picked out to raise stock from, and long years are spent in developing the milk-giving and butter-makin' properties ov the race, the result kan't be otherwise than a better race than the thin-bellied, big-necked, cat-flanked critters that work fur thare livin' on sedge-fields, and git with kalf by any scrub male that was too poor to sell in his youthful days, and too onery to kill in old age; and ef farmers wasn't so blind to their own interests they'd see it, an' they've got to see it, ef I ain't mistaken in the times, or give way under the circumstances in operation against them. Ef this awful pressure in the money market, and money at twenty-five per cent. interest, don't open farmers' eyes, I'm mistaken. It's goin' to drive out ov the feeld them that kan't hold their own, and bring in a new order of things, based on the principles and processes of modern improvement. Think of Maryland farmers still competin' with the West in raising korn, and it worth out there a levy a bushel, and *no buyers*, and consequently they're burning it up for fewel. You don't bleeve that, neither, I suppose? Jes turn to the last monthly Report (January) of the Depart-

ment of Agriculture, then, page 22. Now, suppose twenty-five or fifty farmers jine together in a club, and buy a young bull or two of that improved breed, what would a hundred dollars be divided among them? or suppose they agree to pay a dollar or two a head for each cow served by an improved bull, and plank the money down to some able, responsible member, how quickly he would jump at the chance, buy the animal, and keep him for service. And how quickly would the improvement and the outlay show by breeding always from the best cows, and the product of the improved stock. Talk about banks and mortgages for farmers to put their money in, (them that's got any to put,) when five or ten, or a hundred dollars, spent in that way would pay a hundred per cent. on the outlay! It's the poor farmin' that don't pay. It's the single-handed way we farmers have of doing things that don't pay. It's raising a pound of butter a week per cow that don't pay. It's loosing the benefits which all the great business bodies of the city—the merchants, the brokers, the hatters, the shoe-makers, the can-makers, the tailors—derive from combination, that don't pay. It's being subject to the consequences of these combinations, without any rebutting force to oppose to them, without the strong right arm of conscious power to defend themselves with, that don't pay, and when we plant the tree of organization, and pluck the ripe fruit from its branches, we shall find the fruit others have taken to secure success will give us also the health which is prosperity. Yours, hopefilly,

EZEKIEL JILKS.

PROGRESS OF AGRICULTURE DURING THE LAST DECADE.—Our increase in all the chief articles of agricultural produce, as shown by the census report, is something enormous.

Wine has increased fourteen-fold since 1850, and nearly doubled in the last decade, California being its chief producer.

Hops have increased seven fold in the same time, and more than doubled in the last ten years, New York growing two-thirds of the whole crop.

Barley has increased six fold.

Flax six fold, and flaxseed trebled.

Wheat trebled and oats doubled.

Irish potatoes have only increased one-third, and sweet decreased one-half.

Live stock have trebled in value.

"ACCORDING to Milton, Eve kept silence in Eden to hear her husband talk," said a gentleman to a lady friend, and then added, in a rather melancholy tone, "but, alas! there have been no Eves since." "Because," retorted the lady quickly, "there have been no husbands worth listening to."

KIND WORDS are the bright flowers of earth's existence; use them, and especially around the fireside circle. They are jewels beyond price, and powerful to heal the wounded heart and make the weighed-down spirit glad.



THE  
**MARYLAND FARMER,**  
 A STANDARD MAGAZINE

**EZRA WHITMAN,**  
 Proprietor.

Col. S. SANDS MILLS,  
 Conducting Editor.

Col. W. W. W. BOWIE,  
 Associate Editor.

OFFICE—145 WEST PRATT STREET,  
 Opposite Maltby House,

**BALTIMORE.**

D. S. CURTISS, Correspondent and Agent.

**BALTIMORE, MARCH 1, 1873.**

**TERMS OF SUBSCRIPTION.**

One dollar and fifty cents per annum, in advance.  
 Five copies and more, one dollar each.

**TERMS OF ADVERTISING.**

1 Square of 10 lines or less, each insertion.....	\$1 50
1 Page 12 months.....	120 00
1 " 6 ".....	75 00
1 " 12 ".....	70 00
1 " 6 ".....	40 00
1 " Single insertion.....	20 00
Each subsequent insertion, not exceeding four.....	15 00
1/4 Page, single insertion.....	12 00
Each subsequent insertion, not exceeding four.....	8 00

Cards of 10 lines, yearly, \$12. Half yearly, \$7.  
 Collections on yearly advertisements made quarterly, in advance.

**Special Contributors for 1873.**

N. B. Worthington,  
 Barnes Compton,  
 Dr. E. J. Henkle,  
 John Merryman,  
 Luther Giddings,  
 Ed. L. F. Hardcastle,  
 D. Lawrence,  
 John Lee Carroll,

John Carroll Walsh.  
 Daniel C. Bruce.  
 Augustus L. Taveau.  
 John Feast,  
 John Wilkinson.  
 John F. Wolfinger.  
 C. K. Thomas,  
 Robert Sinclair.

**OUR CONTRIBUTORS.**

We have reason to congratulate ourselves and our subscribers this month, and to feel proud of our contributors, some are new and the others seemed to have turned over a "new leaf" the present year, and given us the benefit of their practical wisdom and useful acquirements through their facile pens. It will be seen, that almost the whole matter composing the present number of the *Maryland Farmer* is made up of original contributions and editorials, whilst we have several communications of interest crowded out. This is somewhat unusual in monthly magazine history. And each article, let it be borne in mind, is well written, interesting and instructive to the general class of read-

ers, and most of them of importance to the farmer. This proves the deep interest felt by the public in the success of our journal and the principles it advocates, all of which commands our sincere and grateful acknowledgment.

Among our new contributors we welcome "Hollywood," with his practical ideas, and "Old Kent"—though he is rather sarcastic, yet suggestive. We thought we had fully explained ourselves in our notice of the College Catalogue to which he refers.

We are happy to offer to the perusal of our many readers the able and scientific production of "A. J. W." on Plant Food. We hope this is but the beginning of many other papers from the same source. Agriculture wants the light of Science.

No. 4 of *Mr. Wilkinson's Variety of Statements and Suggestions all Important to the Farmer*—is such as will commend itself to every one who reads it or has read the preceeding articles of the series, and needs no comment from us. We are happy to have so popular a writer grace our columns with his able and practical effusions.

*Land Mark* as usual is instructive, professedly to the *young*, but the old can read and well profit by his matured, and neatly expressed sentiments and sound advice.

We are particularly happy to have the excellent and scientific communication of *Dr. E. A. Van-nort*, on the value of Coal Ashes, as it will no doubt, because it should, have the effect to make our farmers use in the future this heretofore neglected and despised, fertilizer. We have long since held the opinion from actual experiment, that it was a valuable aid to the renovation of worn out soils, especially stiff clay knolls, but were deterred we honestly confess, from publicly asserting our conviction, because of our want of knowledge of chemistry and the fear that we would be ridiculed by the "phantom tumor" chemists who have declared coal ashes to be worse than worthless as a fertilizer.

The communications of *N. B. Worthington, Esq.*, on "*Maryland Agricultural College*," and "*Smada*," concerning Wheat, Bone, Smut, &c., will be read with interest.

We are glad our old friend and correspondent, *Hon. John Merryman*, has again resumed his pen for our columns.

"*Plant Growth and Filtration*," by *Dr. David Stewart*, will command the attention of every thoughtful reader who reflects upon these highly interesting subjects.

"*Mr. Jilks*," continues to refresh us with his popular, practical humor, and is turning the tables on the "*Foodge*" very "*sarkastical*."



## TWO MORE VETERANS ARE DEAD.

Since our last issue, a national calamity has been sustained in the death of Professor *Maury* and *Luther Tucker*.

*M. F. Maury*, L. L. D. had a world-wide reputation as a scientist and philosopher, he manifested the deepest interest in all matters that appertained to Agriculture, and bent the energies of his powerful mind and his vast learning to its advancement, viewing it as a science, hence the Agriculturists of the whole country, must deplore the great loss they have sustained by death. The void thus created will not soon be filled, if ever, by such zealous ability.

*Luther Tucker*, the venerable senior editor of that widely circulated and able paper, the *Cultivator and Country Gentleman*, at the ripe age of seventy, died at his residence in Albany, on the 26th of January last. He was the oldest and most distinguished Agricultural Journalist in the United States. He was born in Brandon, Vermont, May 7th, 1802; when fifteen years old removed to Palmyra, New York, as a printer's apprentice. At twenty-four or five years, established himself in Rochester, N. Y., and started a daily paper, called the *Daily Advertiser*. On the 1st January, 1831, he started the famous *Genesee Farmer*, which soon became a rival of the *Cultivator*, then the organ of the New York State Agricultural Society, and edited by the distinguished Judge Buel. In 1839 the great agricultural writer, Buel, died, and in 1840, Tucker removed the *Genesee Farmer* to Albany, and consolidated it with the *Cultivator*. Under the latter title the monthly was continued for thirteen years, when *The Country Gentleman* appeared in its place as a weekly, and up to this time has held the first place in the ranks of agricultural weeklies in the world.

As a writer, Mr. Tucker was clear, concise, intelligent and always to the point. He was a devoted and active friend of agriculture, and through his labors of many years, contributed greatly to its progress and the elevation of its dignity as the most important and useful pursuit of mankind.

The month of January, 1873, has been mournfully signalized by the loss, to agriculture, of a trio of its most illustrious and practically useful supporters—the venerated and venerable GOWEN, of Pennsylvania, MAURY, of Virginia, and TUCKER, of New York.

From C. Coleman & Son, Illustrated Price List of the Duquesne Wagon Works.

From Henry Clarke & Son, King street, Covent Garden, London, their Wholesale Catalogue of Trees and Shrubs, &c., for 1873.

## PROSPECTS OF THE PEACH CROP.

At a regular meeting of the Peach Growers' Association, held at Dover, Del., on Tuesday, the 18th of February, after the discussion of the report of the Executive Committee on Railroad Rates, &c., the following on the prospects of the peach crop for the coming season, was elicited:

Mr. Townsend said that in his locality the buds were badly damaged. Mr. Jno. Cochran gave the same unfavorable report of Middletown. E. R. Cochran said that he found some varieties to be one-third alive. Mr. Griffith, of Kent Co., Md., had examined extensively in his section, and as the result would say that not more than fifteen per cent. of any variety are left unblasted, and of many varieties not more than six per cent.; Early York are least injured. Mr. Geo. W. Cummins thought that in all the upper part of Jersey, north of a line parallel with St. George's in this State, the buds were almost entirely destroyed. Dr. Davidson of Milford, said that in lower Kent and down the Peninsula, so far as he had been able to hear from, the buds are yet unimpaired, the trees in splendid condition, and the prospect for a full crop highly flattering.

## MOHAIR—AN ISLAND GOAT RANCH IN THE PACIFIC OCEAN.

A private letter received by Col. H. G. Otis, of this city, says the *Washington Chronicle*, from San Francisco, states that William M. Landrum, the well-known wool-grower and breeder of the famed Angora goat, of Asia, which rare and valuable animal Mr. Landrum introduced upon the Pacific coast many years ago, has just concluded, in behalf of himself and other capitalists, negotiations for the island of Guadalupe, an island in the Pacific, off San Diego, and about two hundred miles southwardly from that point, and ninety miles from the main-land. The island is twenty-six miles long, averages ten miles in width, has good timber and water upon it, and 20,000 goats of the short-haired species, well suited for breeding to Angora rams. The purchasers have formed a joint stock company, which is incorporated, with Landrum as president, who will in a few days send to the Island, from his ranch in Santa Cruz county, one hundred pure breed Angora rams. George W. Dent is one of the trustees of the company, and takes one tenth of the stock—1,000 shares. The old man says: "This is the finest goat ranch in the world, 'I reckon.'" There have been 32,000 goats slaughtered on the island within the last five years.

From H. A. Dreer, Wholesale Price List of Field, Vegetable and Flower Seeds, 1873. Philadelphia, Pa.

DOES FARMING PAY?

POPLAR GROVE, HOWARD CO., DEC. 11, 1872.

I have been requested to tell you "what I know about farming," and have consented because I so often hear farmers complaining that it does not pay.

I bought the farm on which I now reside in 1837 for \$3,400. It contained 120½ acres; but I have since purchased 12½ acres woodland for \$375, making in all 133 acres at a cost of \$3,775. The soil was exceedingly poor, but the buildings very good. I made but little improvements until 1848, when I commenced using fertilizers. I have under cultivation, at the present time, 106 acres by actual survey, and the remainder woodland. I have applied 120 bushels shell lime to the acre, with liberal applications of bone and a few other fertilizers. I have reclaimed all the wet and marshy land, making more than 1,200 perches of under-drain; cleared the farm of more than 2,000 cart-loads of stone, partly by blasting, and more than 3,000 stumps; expended more than \$2,000 in building; more than \$6,000 in fertilizers; and the farm is well stocked with fruit trees, which annually produce a large quantity of apples, peaches, cherries, pears, apricots, quinces, and many smaller fruits. Add to this expense necessary in a large family, which with the above expenses were paid out of the profits of the farm.

Annexed I give the receipts and profits for 1871:

RECEIPTS.

Vegetables .....	\$32.99
Fruits .....	334.29
Live Stock .....	169.82
Wheat .....	632.00
Corn .....	51.00
Oats .....	228.75
Pork .....	22.80
Straw and Shucks .....	207.01
Hay .....	742.05
Butter, Poultry and Eggs .....	342.35
	\$2798.06

EXPENSES.

Interest on purchase money, (\$775) .....	\$226.50
Interest on money invested in live stock and farming implements (\$2300) .....	120.00
Labor .....	400.00
Taxes and Insurance .....	95.00
Fertilizers .....	200.00
Blacksmith and Wheelwright .....	125.00
	\$1466.50
Leaving a surplus of .....	\$1631.56

The farm is permanently improved, producing two tons of hay per acre, and other crops in proportion, and is worth four times its cost. All the bread, meal, fruit, butter, vegetables, poultry and eggs used by my family were produced by the farm. We have the advantages of horses to ride, and drive at pleasure, and many other conveniences which would cause additional expense were I engaged in any other occupation. And, Mr. Editor, in conclusion, I will ask the question, "does farming pay?"

We copy the above from the Ellicott City *American Progress*. The article is from Mr. J. P. Ijams, a prominent farmer of Howard county, and may be taken as one answer to the question, does farming pay? It has undoubtedly paid him, and why? We

call the reader's attention to a few items in the list to show a few reasons why. In the first place, this is not only an instance of profit, but of good living and improvement. Some farmers will settle on a piece of land, work it, and save money, but their land and buildings will be very little better than when they began. \$8,000 have been spent on this place, (which of course includes only a portion of the outlay,) in improvements, and what is the result? Nearly \$700 were realized from fruits, butter, poultry and eggs, only. How many large farmers sell over \$300 worth of fruit in a year? How many sell over \$700 worth of hay? It will be noticed this farm contains only 106 acres of cultivated land. How many of the large landed proprietors can show a clear profit upon investment of the twenty-five per cent. indicated by the above figures? The amount spent in fertilizers was \$200. At this same rate for all Maryland—the number of improved acres being about 3,000,000—six millions of dollars would have been spent. With the exception of wheat, it will be noticed also that the great portion of the receipts are from the sale of those articles which drew on the fertility of the farm to a small extent, which was readily replaced by the large quantities of lime and fertilizers put on the land. We see that Mr. Ijams also appreciates the *comforts* of the farmer's vocation, for he writes "we have the advantage of horses to ride and drive at pleasure, and many other conveniences which would cause additional expense in any other vocation." We may put down good health as a "convenience" beyond all price, and with 25 per cent. profit on investments besides, we may conclude that farming pays when prosecuted in accordance with the directions constantly given in the columns of the *Maryland Farmer*, viz: work less land; cultivate thoroughly; dry all low lands; remove all obstacles to machine-operating; manure heavily; apply lime; put up good buildings; sell those articles that will not exhaust the land; raise plenty of grass, and keep an accurate record of transactions, expenses and receipts, and publish them occasionally for the instruction and encouragement of your brother farmers.

SHOATS IN A BARN CELLAR.—A Maine farmer manufactures manure—that is, mixes it—by keeping four shoats in his barn cellar where he feeds them raw sugar beets and a quart of corn put down with the manure every morning. He says: "The way they 'go for it' (the corn,) is perfectly lovely. The manure is rooted, re-rooted and rooted again, until it is worked up as fine as old manure. The stock is bedded every night."



For the Maryland Farmer.

### COAL ASHES.

In reply to your correspondent Mr. John Batee, of Petersburg, desiring information relative to the value of *coal ashes*, in one of your issues of last year, I would state that by actual experiment and careful observation, I am convinced that they are of more real value to the farmer, than generally regarded by those, who it would seem were well calculated to estimate their worth.

I have looked in vain for an article upon this subject which would express my opinion, and as this is the season for saving coal ashes I offer my views upon the subject.

Mr. B., was unable to see any difference in the yield of potatoes, where he used coal ashes, side by side with stable manure. Although almost universally used, stable manure is not the best manure for the potato; much the contrary; but we should have expected a marked difference if a good dressing of super-phosphate had been used. I do not contend that coal ashes would be as valuable as the phosphate, but nevertheless they are serviceable as a manure, always worth something and occasionally very effective.

One of my neighbors, Mr. Robert Nicholson, a very reliable gentleman, and an observant farmer, assured me that he was unable to see any difference in corn where, *wood ashes* and *coal ashes* were used along side of each other; and it was upon *light land*. Of course he applied the latter in double the quantity to the former, but they were *pure coal ashes*, with only the foreign substance which usually get into them from kindlings, &c.

I have repeatedly experimented with *coal ashes* upon wheat, corn, potatoes and grass, with marked effect; and so have others of my acquaintance, whom I could name, and refer to the experiments, if necessary.

No one doubts their beneficial effects, *mechanically* upon stiff soils, and of their value attributable to the small amount of wood ashes in them. But I am prepared to explain their value, apart from any admixture of wood ashes they happen to contain.

1st. To their power of absorbing ammonia, and

2d. To the silica or silicic acid which they contain.

Now, as to the first proposition, I hold that they do absorb free ammonia and ammoniacal gas from the atmosphere, and the longer exposed, the greater the quantity absorbed, consequently the more valuable. Now for the proof: I have mixed quick lime and sal-ammoniac in a glass retort, and by subjecting the mixture to gentle heat obtained and collec-

ted by displacement the free ammonia. The lime decomposes the chloride of ammonium, forming chloride of calcium, and liberating the ammoniacal gas which escapes colorless and transparent. In a glass stoppered jar containing this gas, I have subjected to its influence recently, burned coal ashes, from which every trace of ammonia had been removed, for different lengths of time, and afterwards examined them for ammonia, mixing them in the same kind of jar, after exposure, with quick lime and closing the jar for a few minutes.

Removing the stopper and exposing a glass rod moistened with dilute hydrochloric acid, a white cloud (chloride of ammonium) is produced, from the formation of the solid salt. By the intensity of this cloud and by other means at our command, we are enabled to determine the amount of ammonia each specimen contains, which varies in different samples; those longest exposed to the air containing the larger percentage.

We all know that the air is a source of ammonia, and that rains and storms bring it in contact with substances exposed. The ashes seem to be an excellent absorbent and increase in value with exposure.

Now for proposition

2d. The coal contains silica and uncombined silicon, which by burying, the alkaline bases form with the silicic acid, salts, and then silicates are readily soluble.

The acid character of silica is especially exhibited when exposed in contact with other salts, to a high temperature. It then displaces the most powerful acids from their combinations, and uniting with their bases, forms silicates. But just exactly how this happy development of assimilable silicates in marked quantities or effects, are attributable, I will not attempt to clearly enunciate. The composition of many of the silicious minerals is extremely complex, and in a scientific point of view, extremely interesting, and yet their chemical formula and most natural relations are still open to question.

It is well that I do know that silica is found in the coal, and in the foreign substances which get into it before being burned. Almost pure silicic acid, common sand, is frequently mixed with it in handling, and that the valuable silicates are found in its ashes, I have demonstrated to my own satisfaction by actual chemical tests.

I have been a long time in acquainting myself by energetic experimental experience, with this subject; and in coming to this determined stand as to the value of coal ashes.

I can confidently say to farmers, your coal ashes are worth saving, worth hauling and worth apply-



ing. If practicable, I should prefer to use them with other substances where the combination would increase their value, as would also the ashes render the substances with which they are mingled more valuable. But apply them directly to the soil if you have, or can procure them in abundance, rather than not use them at all. I shall reserve for another article what I have to say about their utilization and application.

E. A. VANNORT, M. D.

*Mount Airy, Kent county, Md.*

From experiments made some years ago, in England, with coal ashes, they were found to be excellent top-dressing for clover and grass lands, especially on dry, sandy soil. The quantity used was from fifty to sixty bushels per acre, spread either immediately after harvest, or during the winter or early spring. The qualities of coal ashes are said to be improved by covering up in every cart load of ashes one bushel of lime in hottest state, for about ten or twelve hours, when the lime will be entirely fallen. The whole is then mixed together, and turned over three times, when the cinders or half-burned pieces of coal, which would otherwise be of no use, will be found reduced to as fine a powder as the lime itself. The coal ashes should be kept perfectly dry, and when thus prepared with lime and applied to swampy soils, is said to improve them very materially. Dry coal ashes, applied to night soil, from time to time, keeps it from unpleasant odor, and forms a highly concentrated manure, which is in proper condition to be carted away.

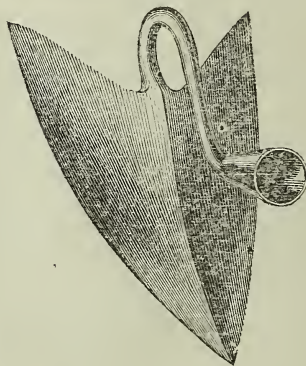
Much of the coal used for fuel in England is the soft coal, but we have no doubt good results would follow from the use of ashes of American coals.—Indeed, in proof that they have considerable manurial value, a writer states that he has often seen squashes and other vegetables growing in great luxuriance upon a heap of coal ashes which had been thrown out from the grates, and entirely free from a mixture of earth or manures. The consumption of coal in the inland cities and villages is becoming every day more extensive, and the ashes for the most part are thrown away as useless material.

To those living within the reach of cities and villages, it would be well worth while to collect this waste rubbish and experiment with it upon grass lands, with a view of determining its real value. It is a mine which may be well worth working, and one which the practical farmer should not overlook.

The Board of Health of the city of Baltimore, at the head of which is Dr. George W. Benson, has recently established four dumping grounds in different sections on the confines of the city for the

purpose of depositing the night soil, coal ashes and garbage, and are now compounding the night soil and coal ashes—the latter being gathered separate from the ordinary garbage—for manurial purposes, to be sold to farmers from the several depositories. They anticipate a ready sale, at nominal prices, for all they can manipulate. It has always been a matter of wonder that the city has not long since attempted to utilize the waste of a great city like ours, and thereby render a great service to the farmers and gardeners of the State, as well as add to the city's exchequer.

THE WARREN HOE.



In the "Warren Hoe" a point instead of the broad blade enters the ground. It cannot be otherwise than that this is accomplished with greater ease, and at the same time it does its work more thoroughly because it can never slip over the surface, but enters the ground and cuts up every weed within the reach of its cutting edges or sides. The corners of the blade are such that it will not clog in any soil, but while thoroughly pulverizing the ground it always scours, keeping itself bright and clean at all times.

The long shank and peculiar hang of the "Warren Hoe" is a striking feature of its utility. It is so hung that the handle balances in the centre of the blade every way. This enables the operator to use either side of the hoe with the same ease and facility as the point; hence whenever it is desirable to employ a broad cutting edge, as in hilling, and sometimes in other uses, he has a cutting surface even broader than the common hoe. It has then three points and two sides equally adapted for any work required.

This improved Hoe is on sale in the Baltimore market, but manufactured in Marshall, Mich.

A YOUNG LADY, having read about a man having invented a stove which consumes its own smoke, hopes he will devise a method whereby tobacco-smokers can be run on the same economical principle.

MANY a housekeeper thinks her happiness would be complete could she only have plenty of solid silver for her table, while others who have it, lay awake nights lest thieves break into the house and carry off the plate.

## MARYLAND AGRICULTURAL COLLEGE.

AGRICULTURAL COLLEGE, }  
February 17, 1873. }

*To the Editors of the Maryland Farmer:*

Noting your comments, in February number, on the Catalogue of the Maryland Agricultural College, allow me to set right a point on which you are misled, by the fact that the Catalogue was printed last summer, before the appointment of Dr. E. J. Henkle to the Chair of Natural History, mentioned in my last.

This deficiency being supplied, you will find that there are three professorships, within the range of which are embraced the following sciences: chemistry, botany, vegetable physiology, zoology, meteorology, geology, mineralogy, anatomy, veterinary surgery, mechanics, optics, acoustics, pneumatics, light, heat, electricity, and mathematics as applied to mensuration and surveying. Take these one by one, think a while what is implied in each, and you will conclude perhaps that here is a supply of scientific teaching equal to any probable demand. You will think right. Only a limited number of our students are prepared or inclined to take the range of these sciences to the extent that they may.

Besides the departments of Natural Science, Natural History and Mathematics, within which the above named branches are included, there is a course of lectures throughout the year on practical agriculture, in which the student's attention is continually directed to the bearing of one or other of these sciences on the operations of the farm. The application of chemistry, for example, to the operations of ploughing, draining, irrigation, feeding of cattle, management of manures, &c.; the relation of geology to the constitution and diversities of soils and subsoils, &c., &c. This course of instruction is supplied from one of the other departments.

You see, therefore, that two of the leading chairs of the college are devoted exclusively to those sciences which, important as they are outside of agriculture, and valuable to any student, may still be set down as agricultural, because of their direct relation to our pursuit; while two others give a considerable portion of their time to what is also strictly agricultural teaching. Only one leading department is devoted to instruction in foreign languages.

I make this statement of facts only to show you that what may be called agricultural instruction is not ignored, or even thrown into the background, as your comments seem to imply, but would not have it inferred that I agree with you in what you say as to "public expectation, based as it is upon

the declared intentions of the founders of this Agricultural Institution."

You will bear with me, I hope, while I dwell somewhat on this point, not at all in a spirit of controversy, but because I think it is of real importance that those who are giving their time and talents to the improvement of agriculture, and to the institutions devoted to its interests, should work together in perfect harmony of thought and feeling, and should therefore understand one another: and that the community of Maryland farmers should have no confused impression of the original design or the practical working of the College.

In your January number, second page, in the article headed "Bad Farming," you make the objection to agricultural colleges that "they do not turn out, as they were intended to do, scientific and practical working farmers and horticulturists, &c." Now let us think what is meant by the expression, practical farmer. What grown man, starting when he comes of age, becomes a practical farmer of any account, without some years of solid, hard-working experience? The idea involves skill and knowledge and judgment in all the hundred matters of detail in daily farm work, and these are learned, and can be learned, only on the farm. Set boy or man to a faithful training in practical agriculture, and there will be little time left that he will be inclined to devote to scientific studies.

The day may come when there will be demanded a school of agriculture answering to our medical and law schools, where young men who have finished their general education may spend two or three years, devoted to scientific study only, and having much time that can be spent advantageously on the farm. Such a day has not yet been, and is not now. Had our College started on such a system, it would not have lived a year. There was no demand for such an institution. It would have had no pupils.

Returning now to what you say as to "the declared intention of the founders of this Agricultural Institution," that "agricultural knowledge, both theoretical and practical, was what was chiefly to be taught the students," and further, that "until it becomes more specially an agricultural than a literary school, it will not meet the public wants, nor be in consonance with the lofty intentions of its original patrons, and the distinguished agriculturists who brought it into existence." In reply to this let me say, that the President of our Board of Trustees, Hon. A. B. Davis, and his predecessor in office for many years, Hon. James T. Earle, who is still a member of the Board, were both "original patrons," and neither of them has a suspicion that the institution is perverted from its original purpose. I add



my own testimony as one of these "originals," making three of the committee who in behalf of the State Agricultural Society, asked a charter and endowment from the Legislature, were appointed Commissioners to take subscriptions, and Trustees at the first meeting of stockholders, and who have had constant connection with the College throughout its career.

But let us turn to the record proof. The Act of Incorporation of the Agricultural College will be found at Chapter 97 of Laws of 1856. The preamble to the Act, after reciting the application made by "certain wise and virtuous citizens," who are desirous of instituting within the State, "an Agricultural College and Model Farm, &c.," conclude as follows:

"And whereas, it is the province and duty of the Legislature to encourage and aid philanthropic and patriotic citizens in their efforts to disseminate useful knowledge by establishing an Agricultural College and Model Farm, which shall, *in addition to the usual course of scholastic learning*, particularly indoctrinate the youth of Maryland, theoretically and practically in those arts and sciences, which shall enable them to subdue the earth, &c."

Here, if anywhere, we find what may be properly called, to use your words, "the declared intention of the founders of this Agricultural Institution." It makes agricultural instruction *additional to* "the usual course of scholastic learning."

Again, in the first printed Report of the Trustees to the Legislature of Maryland, January Session, 1864, after giving at length the system under which the College was working, we find, on page 6, the following: "From this statement it will be seen that this is no mere Manual Labor School, nor a College intended to qualify its students *only* for the pursuits of Agriculture and the Mechanic Arts, but a Literary Institution of as high grade as any in the country."

A "public expectation," therefore, if it has been disappointed, is itself only to blame. The public mind should not have expected what it had no reason to expect. But even on this point I think you are at fault, else why should these good folks have sent us, last year, a hundred and forty-seven boys? They come here at the average age of sixteen, perhaps, and they come *to be educated*. Agricultural instruction, much as many of them wish it, is secondary to their general education and for boys of that age it should be so; for it is infinitely better to be educated than to be taught agriculture. A liberal education instructs and trains and disciplines the boy, makes a *man* of him, and fits him for any work. While a course that takes a boy of sixteen, uneducated as we usually find them, and

ties him down to study agriculture only, may make him a narrow-minded farmer, but nothing more.—The State wants her sons trained first into high-toned, high-souled, thinking men, capable of becoming scientific farmers if it suits them, but capable too, of something more. Very respectfully,

N. B. WORTHINGTON.

#### MARYLAND AGRICULTURAL COLLEGE.

MESSRS. EDITORS:—I have just read in the February number of the "*Farmer*" a communication from N. B. Worthington, Esq., who, I infer, is one of the faculty at the College. Now if the College is really doing what Mr. W. says they "claim" to do, I am heartily rejoiced, for I did not suppose any Agricultural College in the country claimed so much.

Mr. W. says: "*We claim to give to the farmers sons of the State, at a very low cost, a course of instruction in all that a good citizen and farmer ought to learn.*"

This is just what we have so long needed, and what we had hoped that we would some day realize from Agricultural Colleges, when they had once reached the ripe experience of the Maryland College, and had attained to a "*thoroughly sound financial condition*," which Mr. W. very properly, exultingly states that ours is, as I have quoted.

I am most thankful that I have been spared to the day that has completed a life of three-score years, and equally so, that it has been my lot to live to read of such glorious progress and success in the course of instruction given at our own State Agricultural College.

I call upon you, Messrs. Editors, and all my brother farmers, to rejoice with me over the realization of so great a desideratum in our day and generation. I was made very happy, indeed, by reading the very interesting report of "*A Trial of a Steam Plow*," published in the December number of the "*Farmers*," from the thoroughly practical pen of your "special correspondent," Mr. Wilkinson, but my delight at hearing that "*farmers' sons*" can now have "*instruction in all that a farmer's son ought to learn*," including those all-essential branches, "*gymnastics*," and "*military tactics*," and the classics, and that, too, at our own Maryland State Agricultural College, is truly ineffable.

Now, Messrs. Editors, I had read your remarks on the Catalogue of our College, which you stated you had received, before I read Mr. Worthington's very gratifying report on the condition of our College, and I cannot reconcile what you quote from the Catalogue with Mr. W.'s report. You state that, according to Catalogue, "the Chair of Agri-

culture, Horticulture, Floriculture, Pomology and Botany is vacant," and notwithstanding, according to the Catalogue, "*regular lessons in Practical Farming and Gardening,*" &c., &c., "*are given to every class in College.*"

This is what I cannot understand, and what I would be greatly obliged to you if you would explain so as to be intelligible to one who was not as fortunate as the "farmers' sons" of this age are, who are taught at our College—"all that a farmer ought to know."

In my old foggy ideas of an Agricultural College I was under the (as it appears, erroneous) impression that the Professor of Agriculture was quite as important in such institutions as a Drill Master, or a Professor of Gymnastics, but it seems that it is not so, and that if these two professorships are well filled, the former may be dispensed with, and yet the students of the Agricultural College are taught "*all that farmers' sons of Maryland ought to know.*"

If I had not the rheumatism so badly, and were not so old, I would rent out my farm a year or two, and place myself under instruction at our College, and learn all that I "*ought to know,*" and if I could be spared a few years after returning from College, I would show my neighbors that there is one man at least who knows how to farm in OLD KENT.

---

For the Maryland Farmer.

#### TO YOUNG FARMERS.—No. XV.

##### THE REASONS—READING.

Now, young friends—young Agricolas—"Land Mark" has been talking to you, or writing to you, for over a year; and, doubtless, you have often thought his matter was rather dry; but you would not always have sweet-meats, nor spring showers; you frequently find a dry field of loam, or a mellow sand-lot; but when you carefully penetrate it, and handle it over, you find some excellent fertility there, and some pleasant work in getting your crops from it; so, if you will studiously cover many of the *dry* things, about farming, which Land Mark has presented, you will doubtless find many of them fruitful in profitable lessons, and useful hints.

Let us now work over some new fields, or vary our operations a little in the same fields. In all our farm operations we have two objects, namely: we desire to secure profit for our labor—to make it pay; and we also desire to have our labor as pleasant and comfortable as may be—to make it attractive and entertaining. To effect these ends completely, the *mind* must be engaged and interested first, and direct the efforts of the *hands* and

muscles. Young farmers, who are not thinkers and reasoners, usually go about doing what they do, in some particular way, *because* they and others have always done it in the same way before; without knowing the *reasons*, or thinking of the principles, for so doing. For instance: they plow their corn ground in the spring, just before planting, because that is the common way, without considering whether it is the best way. Why do they plow the land *at all*? Why, to make it loose and mellow, so that the young plants can feed upon it; and so as to kill grass and weeds; also, to have it well pulverized to afford moisture to the growing corn; yes, that is it; then how can we effect or secure all these ends still more abundantly, at a profitable rate?—Very easily, as much experience and observation has proved to us. Thus, plow the ground, deeply—10 to 12 inches—in the fall, just before the ground freezes, when it is wet or moist and plows easily, and when teams are strong and vigorous, in the cool weather, and when you are not driven with other work, as is common in the spring; now you are prepared to wring in *Jack Frost* to work for you; he lays hold of these furrows, which you have turned up in late autumn; he freezes and crumbles them; he freezes and kills many bugs, worms and foul seeds; then the sun thaws and slacks the frozen clods, in mid-winter, but Jack soon comes along with another killing frost and tightens up things; so, between the conflict of sun and frost, your land is mellowed and much foul stuff killed out and off; then, in the spring, if you wish, you can go over with a shallow plowing, four to six inches, which can be done much more rapidly than the first deep plowing—ought always to be done—and which is lighter work for the teams, in spring, when they are liable to be more languid and weaker. Here you have a principle, a reason, for things; but this deep plowing, in the spring, without the action of frost, would be injurious and unwise. Hence, true, highest farming needs careful *thought and study.*

And now, right here, my young friends, one word about *Reading*; we often hear farmers, and many others, say, they have no time to read; well, admit you have not much time to read; say you resolve to *read one hour* each day, that is not much—most of us waste more time than that; but see what, even that, will amount to in a year; over a month of 10 hour days; and a careful reader can read, profitably two pages an hour, of ordinary books; which will make in the year, over 700 pages—a very respectable year's study; try it, this year, and tell me if you regret it.

LAND MARK.

The Maryland Farmer, only \$1.50 per year.



*For the Maryland Farmer.*

### PLANT GROWTH AND FILTRATION.

In the last number of the *Farmer*—page 39—I notice an exceedingly valuable article with above caption, which *appears* to conflict with a statement I made in the *American Farmer*, 1850, that ALL fertile soils thus leached impart to rain-water a notable quantity of *all* the elements of soil plant food. In 1860 Bunsen detected two new metals, Cæsium and Rubidium, in a solution of soil (or "spring water,") of Diirkheim—although only four grains existed in a ton—and it was necessary to evaporate forty tons of the water in order to obtain 200 grains of these substances—hitherto never suspected. So, also, it was necessary to evaporate five gallons of the water of the "Salt Sulphur Springs" of Virginia, in order to detect the Bromine, even with the aid of Palladium, (by the writer,) but at that time spectrum analysis was not perfected, (say about 1851.) Then it was unsafe to detect the elements of soil in water leached therefrom—and in the article referred to I predicted the ridicule which must attend such investigations—but now the difficulty is in escaping the contamination of these elements of soil plant food in analysis of the sun atmosphere!! Accident may contaminate rain-water with some element of soil plant food—but no accident can account for the absence of *any* one element in the filtrate or leachings of *any* soil—it is impossible "in the nature of things." Moreover, the relative proportion in the filtrate proverbially indicates the fertility of the soil—as all springs soon testify, and even wells.—So accurate is this average that they will also indicate the average temperature of the vicinity. Nevertheless, the article referred to exhibits the truth which any superficial observer may verify as stated. For all practical purposes, ivory black or bone charcoal deodorizes sugar on the same principles, but a much larger proportion of the sugar passes through with the water, and subsequently the charcoal approximates to a good soil, and allows some sugar to pass *with* traces of other elements, even phosphates, possibly; much more is water "of the earth earthy," and capable of indicating its origin; specially with regard to some bases, such as lime, magnesia, soda, potash, also sulphuric acid, chlorine, and even phosphoric acid. Any soil, however poor, from any State or country in the world, will give to pure rain-water nearly, if not quite, all of these—the elements of soil plant food—and when compared with a similar normal solution of any good soil, indicate "at a glance" its deficiency.—Whether these elements are derived from the soil or springs beneath, or some accidental addition to the surface, is not the question; but the *absence* or

deficiency of *any* one, or all of them, must *always* clearly indicate the most economical manure—and cropping or the weight of the ashes of any plant grown thereon must necessarily afford the next best reason for supplying what is removed. Lime, like the coal on the terrapins's back, *compels* it to give out what it cannot afford to lose; and no doubt the experience of the Dutchman is reliable, when he asserts that "it makes the father rich, but the son poor." In view of these facts we should never "improve land," but merely manure crops, for seven reasons, *beside* the fact that rain leaches the soil—therefore the great practical importance of the essay referred to—showing its power in retaining *temporarily* the organic elements of manure—but no *excessive* quantity of inorganic elements, *if well drained*. A certain proportion of both is not only secreted by the soil, but given up *very* sparingly—even to pure rain water—the only medium by which the plant can obtain or use them.

DAVID STEWART, M. D.

*Port Penn, Del., February 13, 1873.*

### KENT COUNTY AGRICULTURAL SOCIETY.

At the regular election held third Thursday in January, 1873, the following officers were elected to serve one year in the "Kent County Agricultural Society, No. 1."

Capt. JOHN S. SKIRVEN, *President*.

JAMES BECK, *Vice-President*.

SAMUEL VANNORT, *Recording Secretary*.

JOHN W. COREY, *Corresponding Secretary*.

WM. H. STEWART, *Treasurer*.

E. A. VANNORT, M. D., *Librarian*.

Standing and Finance Committees were appointed by the President.

At same time and place the reports of Officers were read. The report of the President showed the Society to be in a very flourishing condition. The organization had held its sessions regularly, attendance had been good, and discussions interesting.

The Treasurer showed the finances of the organization to be healthy, with funds in hand.

The report of Librarian contained evidence of the books and periodicals being largely read by members, and exhibited an increased desire on the part of the members for sound, practical, agricultural literature.

This club is a live institution, and is doing much good in old Kent.

### ANOTHER FARMERS' CLUB.

We learn that the influential farmers in *Oxford Neck, Talbot County, Md.*, have formed a *Farmers' Club*, and elected *Mr. Jonathan Leonard*, President; *Mr. James H. Willis*, Secretary, and *Mr. Thomas G. Reynolds*, Corresponding Secretary. Their object being the promotion of practical knowledge in farming and gardening in their vicinity, they desire correspondence and interchange of views with similar associations throughout the State. These enterprising gentlemen have our earnest wishes for their success. It would be well if every county and neighborhood had such a Farmers' Club.

## MUIRKIRK FARM—SHORT HORNS, &amp;c.

HAYFIELDS, February 14th, 1873.

*To the Editors of the Maryland Farmer:*

On Wednesday 12 inst, I availed myself in company with Capt. Thomas Love and Mr. William Webster, of an often repeated invitation, to visit Mr. Charles E. Coffin, at Muirkirk. Mr. Coffin met us at the railroad, upon arrival of train, and in a short time had our party comfortably seated behind a fine team of black six year old's, bred in St. Mary's county, and drove us a short distance to his fine barn, and landed upon the second floor, directly over his cattle stable. This barn has been built within the past twelve months, is 100x44 feet, with a cellar under the whole building; the first floor is assigned to the cattle, of which there are nearly forty, including the young calves. We had an opportunity of inspecting each and every animal carefully, and while we have had opportunities of looking through some of the best Herds of Kentucky, Ohio and Illinois, we have never seen so fine a lot of Short Horns.

The Booth Bull, Royal Briton, four years old, it is said, has not his superior in this country. Four thousand dollars was refused for him, and Mr. Coffin stated he was not for sale at five. Among the cows, all superior, Evelina, now eleven years old, attracted our special attention; she is one of three in the herd that cannot be depended on for breeding.—She is very large and fat, and would weigh about 2,000 lbs. A two year old heifer, by Royal Briton, shows great promise, also, several yearlings, particularly a roan, the Belle of Muirkirk. The calves were in keeping with the rest of the herd. The latter are fed upon milk and oil-meal gruel, in about equal portions. They are taken from the cows when about three days old, first fed upon sweet milk, and then above diet, with hay.

Mr. Coffin raised about 6,900 bushels roots the past season, 5,000 being ruta bagas; they are cut by one of Nourse & Mason's hand power cutters, and fed to the cows twice each day, about one bushel per feed; they have also cut hay and straw, with brownstuffs. The young cattle have oil cake, in lieu of brownstuff. There is an upright boiler and small engine, in a secure brick building adjoining the barn which, is used for running a mill for chopping, and also a hay and straw cutter; the boiler is in daily use, in steaming food for the young cattle and hogs. By removing two knives from the straw cutter, (one of Sinclair's Masticators,) the hay and straw is cut in lengths of about two inches, which Mr. Coffin thinks is better than the usual length—by using equal portions of wheat straw

with the hay, it is eaten as well as if hay was alone used.

The second floor of the barn, with the exception of three small rooms, at the entrance, in one of which is the mill and masticator, is entirely open, admitting a largely loaded wagon to drive into, unload, and turn. Upon this floor the roots have been stored this winter, covered lightly with hay, passing through the severe winter weather with but little loss from frost. In the other rooms referred to, the implements required upon the farm are stored, all of which seemed to be of the most approved kind.

The cattle are soiled during the spring, summer and autumn. First they are fed rye, then in succession, oats, clover, orchard grass, green corn fodder and lucerne.

After leaving the barn, we visited the green-houses, and found a rare collection of plants in most excellent order.

Mr. Coffin appreciates the idea of surrounding the farmer's home with comforts and attractions to the members of the family. We were carried into what he termed the sitting-room, it was not less than forty feet in length; in the centre was a billiard table, and at one end, a well selected library. The house throughout was comfortably heated from a hot-air furnace, and lighted by one of McAvory's gas machines.

We were cordially welcomed by Mrs. Coffin, and found them surrounded by four little children.

In addition to the farm of 120 acres, Mr. Coffin conducts the Muirkirk Furnace, the charcoal iron from which has the reputation of being equal to any in the United States.

After partaking of the liberal hospitality of our kind host and hostess, we took the 4.10 train from Washington, in a pelting storm, our party realizing that a most inclement day had been well spent.

Very truly, yours, JOHN MERRYMAN.

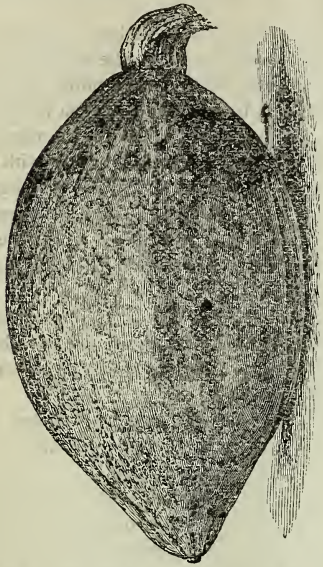
## TIME TO SOW WHEAT AND CLOVER IN SOUTH CAROLINA.

A correspondent in Greenville county, S. C., writes the Agricultural Department, as follows:

Ninety-nine times in a hundred wheat planted here by the 10th of October will yield a good crop by the 10th of June. Clover-seed rolled in at the same time with the wheat will give a crop of stubble-hay after the wheat comes off, better than corn-fodder for cattle. If the land is good the clover, which stands three years, yields a larger profit in hay than can be gained by any other crop. Then clover-sod plowed in and put to corn will give thirty-bushels, to the acre. Then, with six wagon-loads of barn-yard manure, plowed in, the wheat-crop will be from twelve to fifteen bushels per acre.



## THE "MARBLEHEAD" SQUASH.



THE "MARBLEHEAD" SQUASH.

The above is an engraving of a new squash introduced for the first time this season by Mr. Jas. J. H. Gregory, of Marblehead, Mass., who has become famous in the squash way by having introduced the celebrated Hubbard Squash some years since, and now he claims that he has another squash equal if not superior to the Hubbard, and which he has christened "Marblehead," in honor of the old town of that name. Those particularly interested can send for circulars giving full particulars. The following we extract from his circular:

"This new squash, as a rule, is characterized by a shell of a more flinty hardness than the Hubbard.—It is usually thicker and flatter at the top. It has a greater specific gravity. The flesh is of rather a lighter color than the Hubbard, while its combination of sweetness, dryness and delicious flavor is something really remarkable. In yield it equals the Hubbard, while its keeping properties are declared to surpass that famous variety. In the important matter of purity, it excels the Hubbard and every squash that I have ever raised. Its outer color is a light blue; not to be confounded with the blue colored squashes that come at times from the Hubbard seed—inongrels made by a cross of the Hubbard and a thin skinned squash which we used to call Middleton blue, which we were raising before we knew of the Hubbard, and raised for a few years after we had the Hubbard, side by side with it. If the seed of these mongrels be planted, their hybrid character will be seen by a terrible sporting, so dreaded by every farmer; while, on the contrary, the crop from the seed of the "Marblehead" will be found to excel in purity any standard variety of squash."

It has been tested by Marshall P. Wilder, Geo. B. Loring, and P. Morris, who speak of it in high praise.

## WHEAT—BONES—SMUT, &amp;c.

MONTGOMERY COUNTY, VA. }  
February 15th, 1873. }

To the Editors of the Maryland Farmer:

We have been silent for some time. In farming we do not believe in the old maxim, "He is wise who says but little," for it is by constant talk and inquiries, addressed to experience and science, that the farmer makes himself a farmer. Study is the key-stone which produces the equilibrium in the farmer's arch. We have failed to study, as we should do, your valuable magazine, and are behind the times, on account of being separated for twelve months from the *Maryland Farmer*, and one or two other good books in our library.

We will offer several questions, with the wish that they be answered by you or some of your correspondents.

*First.*—Will it do to sow ground bones on wheat now? Is its action immediate, or should it have been drilled in with the wheat in the fall, and what quantity to the acre?

*Second.*—Does it require any other fertilizer with it?

*Third.*—Does it follow because the seed wheat has had smut in it, that the wheat produced from that seed be smutty?

*Fourth.*—Does plaster have any injurious effect sown upon wheat in the spring?

These questions have worried our little brain, and it is for that reason we ask, not that our lands require so much fertilizer, (all require some.) Ours is a God-favored country—our lands are rich, our grass abundant, our cattle as good as the best, our fruit delicious, our men strong, healthy and industrious, and our women, God bless them, the "fairest of the fair," who can milk the cows while their lords and brothers guide the plow. Not "proud if they are pretty," but, "*con et utile.*" Ever ready and willing to lend helping hands, though fair and delicate those hands may be. Our section took the premium at the Lynchburg Fair for the largest yield of corn to the acre—one hundred and fifty and one half bushels. Query—"Will the farm pay?" May fortune and success continue to crown your efforts as journalists in extending good to mankind.

Yours,

SMADA.

In answer to the above queries of "Smada," we reply categorically. To the 1st—Yes, and if they be finely ground into dust their action will be immediate, that is, will be seen in the wheat crop. The coarser they are the slower the action. We would prefer to have put them in with the wheat last fall. The quantity of bones usually applied is from 7 to 10 bushels per acre, though 15 would be better. 2d.—No. 3d.—It does not follow unfailingly, but is likely to do so. The wheat should have been brined and rolled in lime. 4th.—Quite the contrary, and if mixed, 2 bushels of plaster with 3 of salt, per acre would be, we think, better for your wheat than the proposed dressing of bone-dust.

We congratulate our esteemed correspondent upon his residing in such an Arcadia; verily he lives in a land of beauty over-flowing with milk and honey.

For the Maryland Farmer.

## TRANSLATIONS AND COMMENTS.

### FROM THE GERMAN.

From the *New York Deutsch Amerikanische Farmer Zeitung*, (German,) we learn that Dr. Freidlander, of Proshau, (Prussia,) Teacher of Technology in the Agricultural Academy, has been experimenting with a new textile plant, *laportea pastulata*, which was found in the Alleghanies.

The straw of the plant would be especially valuable to farmers, on account of the large quantities of saltpetre which it contains; it burns slowly, and can easily be kept if dry, and not in a heated room, but it cannot be stored in a warm room, as spontaneous combustion would be likely to ensue.

(Here is a new field for research. Where are the experimenters? Niter (saltpeter) is a strong fertilizer, and if the farmer can raise an abundance of any plant which will organize niter from the soil and atmosphere in the quantities indicated in the original article from which we translate, we shall be getting near a demonstration of the adage, "manure is a crop.")

The *Farmer-Zeitung*, in commenting on the recent fires, also urges farmers to insure their property, on account of their inability to stay the progress of the devouring flames after they get headway, from the absence of proper appliances and sufficient assistance.

From the *Amerikanische Farmer*, Chicago, we copy the following:

"Chicken-houses contain a great many insects in summer, and it is necessary to get rid of them, their presence being greatly prejudicial to the health of the fowls; to do so, after the fowls go out in the morning, put a few fire coals in an old tin pan or iron pot, and on them a piece of roll brimstone, (sulphur,) large enough to make a sharp smoke, which will enter every crevice in the building, and destroy the insects. Shut the place up tight till twelve o'clock, then thoroughly ventilate."

(Care must be taken to produce only smoke, and not flame; we have a case of fumigation in mind in which the building, hay, &c., were burned up. Another way to fumigate by sulphur is to melt the roll brimstone, holding above the stove, and saturate rags with it, which may be set afire, and will burn slowly.)

To prevent iron and steel, machinery, locks, &c., from rusting, Prof. Bottger, in same paper, recommends a preparation of white wax melted in turpentine.

### FROM THE FRENCH.

From *La Semaine Agricole*, Montreal, January 10, we translate the following items:

In a long communication Emile Bonnemant urges the encouragement upon the part of the gov-

ernment of the introduction of horses for the improvement of the native stock; he says:

"Agricultural labors consist not only in the production of cereals and industrial plants; if we wish to preserve the fertility of the soil, it is necessary to add the raising of cattle, and sometimes even the employment of commercial manure. In Canada, the horse is without any doubt the animal destined to give the best profits, and from the first my attention has been called to the improvements which we would be able to effect with the excellent native race, and I have thought of the creation of a national stud to improve animals, as I have desired to improve culture by the introduction of the sugar beet. The Legislature and the Government of the Province of Quebec, having perfectly understood all the advantages which would result therefrom, have accorded an annual subsidy to the enterprise, and the Governor General, Lord Dufferin, has taken it under his protection, so that we may expect the immediate realization of results."

(The friends of advanced agriculture in our own country, agreeing with M. Bonnemant that judicious cattle-raising must accompany successful agriculture, have suggested the exercise of some legislative control over the animals kept for service.—The enlightened agriculturists of Maryland and the Southern States might consider the expediency of the adoption of something of the kind here. The stallions which are so plentiful in the rural districts, and whose services may be secured so cheaply, (some of them for a barrel of corn—whether the price is \$3 or \$10,) may prove to be dear at any price, and the same rule will hold good with cows and pigs; any one accustomed to the mode of operating in the country in this matter must be satisfied that great loss is annually entailed from insufficient care in this matter, and any remedy for the evil would be a general benefit, but as Col. Bowie has referred to this question so pointedly I must hand it over to him.—*Trans.*)

In regard to beet sugar manufacture, the same writer says:

"For a country to be prosperous, it is necessary that its agriculture, its manufactures and its commerce should be in equilibrium, and if by force of peculiar circumstances the last of these forces takes undue proportions, it produces factitious and dangerous transactions, as is witnessed in some cities of America; a just equilibrium is absolutely necessary between these three sources of public riches; for the merchant can feel assured of the sale of his merchandise only as far as agriculture is rich enough to buy,"—and to inaugurate a branch of manufactures which shall directly and favorably affect agriculture, he suggests the manufacture of sugar from the beet. We have heretofore presented this question to our readers as throwing some light upon the conclusion to which southern agriculturists have generally arrived, that something must be done to bring back prosperity.

**For Twenty Dollars**—We will send 25 copies to as many subscribers for the year.





## HILLS' ARCHIMEDEAN LAWN MOWER.

Hills' "Archimedeal" Lawn Mower is so well known throughout the United States, that it requires but little description on our part. Its chief features are: Its simplicity of Construction—Easy Draught—Durability—Perfectness in its Manufacture—Easy way of Sharpening the Cutters when dull, and perfectly adapted to all Slopes, Undulating Lawns, Ridges and Valleys; and for the Croquet Ground is invaluable. Each part of the Mower is numbered, or lettered, and made to interchange in case of breakage, and can be supplied by the company or their agents, E. Whitman & Sons, Baltimore, Md.

### PUBLICATIONS RECEIVED.

**The Ladies Bazaar of Fashion, Literature and Art.** T. ELWOOD, Publisher, Philadelphia. Price \$1 per annum.

This is a new monthly paper, well printed, profusely and elegantly illustrated, and will no doubt prove very acceptable to the Ladies.

**A Manual of the Cultivation of the Grasses and Forage Plants at the South.** By G. W. HOWARD, of Georgia. Published by BOYLE & CHAPMAN, Memphis, Tenn.

This is a carefully written essay and will prove of great value to the South, if the farmers and planters will follow its suggestions.

**The Illustrated Annual of Phenology and Physiognomy.** for 1873. By S. R. WELLS, 389 Broadway, New York. Price 25 cents.

This annual is full of pleasant and instructive reading and profusely illustrated.

**Annals of Bee Culture for 1872.** By D. L. ADAIR, Hawesville, Ky. Price 50 cts.

**Annual Catalogue of Vegetable and Flower Seeds.** grown by J. H. GREGORY, Marblehead, Mass.

This contains the opinions and observations of that distinguished seed grower, Mr. Gregory, upon all the different new varieties of seeds, he offers the public.

**B. K. Bliss & Sons. Illustrated Spring Catalogue.** Price 25 cents. New York.

This a splendid book of 200 pages, and is really what it professes to be, the *Amateur's Guide to the Flower and Kitchen Garden*. It is beautifully printed, and illustrated by many engravings of flowers and vegetables, besides a rich colored plate representing 25 different flowers in bouquet form.

**Briggs & Brothers Quarterly Catalogue.** Rochester, New York. Price 25 cents per annum—and free to all who purchase \$1.25 cents worth of seeds.

This Quarterly contains 150 pages of reading matter, profusely illustrated, and has a half dozen colored

prints or chromos. This is beyond doubt the most expensive and superb catalogue we have ever received. It is gorgeous!

**Agricultural Address,** delivered by CLARKE BELL, Esq., of New York, before the Dundee Union Agricultural Society.

This address embodies many useful facts and does credit to its author, who we are pleased to recognize as the writer of a series of excellent articles on European Grape Culture, published a year or so ago in the *Maryland Farmer*.

### RECEIVED.

From James Fleming, of New York, his Illustrated Seed Catalogue for 1873.

From the Publisher's Indianapolis, Indiana, the "*Western Guide*," a monthly Journal of practical and official information of the new States and Territories.

From A. Bryant, Jr., Nursery catalogue for 1873, of the Bryant Nurseries, Princeton, Illinois.

From D. L. Adair, Hawesville, Ky., "*Progressive Bee Culture*," a pamphlet upon a new theory of Apine instincts and labors, illustrated and systematized.

From Gibson Brothers, Printers, Washington, "*United States Postal Guide*" issued weekly and quarterly by two employees of the Post Office Department—\$2.50 a year for both editions—or \$1.50 for quarterly edition.

From the author Chas. W. Banks, Baltimore, "*Bee-Keeping in a nut shell*." Price 15 cents.

From the Proprietors, Price List of Whitman's Agricultural Works, St. Louis, Mo.

From S. B. Vreeland, his Spring Catalogue of New, Rare and Beautiful Plants for 1873. Greenville, Hudson county, New York.

From J. B. Patterson, Secretary, List of the Keystone Manufacturing Company's Farm Machinery, Sterling, Ill.

## LADIES DEPARTMENT.

## CHAT WITH THE LADIES FOR MARCH.

BY PATUXENT PLANTER.

Generally, with us, we find Winter,

—“Lingering on the verge of Spring,  
Retires reluctant, and from time to time  
Looks back, while at his keen and chilling breath  
Fair Flora sickens;”—

but it often happens, especially after a long severely cold winter, this month is balmy and gives us a spell of spring like weather when the Snow-drop, Daisy, Cowslip. Violet and such like early flowers appear and we can, with the old poet Clare, exclaim—

“Violets, sweet tenants of the shade,  
In purple's richest pride arrayed,  
Your errand here fulfil;  
Go bid the artist's simple stain  
Your lustre imitate in vain  
And match your Maker's skill.

Daisies, ye flowers of lowly birth,  
Embroiderers of the carpet earth,  
That stud the velvet sod;  
Open to Spring's refreshing air,  
In sweetest, smiling bloom declare,  
Your Maker and my God.”

As there is but little if anything to be done in the flower garden this month, we shall have to talk of other rural domestic duties.

The dairy is to be prepared for its appropriate work. It is to be thoroughly cleansed and aired, and all the utensils put in order, as an increase in the quantity of milk may be expected, and butter making will begin in earnest, and all the round of duties appertaining to the dairy business will soon claim your attention.

If you desire to have a fine show of poultry and a supply of eggs, follow the advice given in the Work for the Farm, in this number of the *Maryland Farmer* about poultry houses. Select the different breeds of fowls and procure them at once. Take care not to have too great a variety of improved breeds. Get Bremen Geese, Rouen Ducks or the beautiful Aylesbury, or confine yourself to the old Muscovy. By all means procure a pair or more of the large Bronze Turkeys. Raise Guinea Keets; they are equal to Prairie-hens when young and fat. For your lawn have the Pea-fowl—a proud, gorgeous bird, and a few white Bantams in a diminutive fancy house built in a quiet spot on the lawn amid a clump of shrubbery. For chickens, if you want good sitters and fair layers and large domestic fowls, raise Brahma's or Partridge Cochins. If you desire handsome birds and everlasting layers procure the silver or gold spangled Hamburg; they will give quantities of eggs, will not sit and rear broods and will require a wide range, for they fly like pheasants. If you want good layers, good mothers, and delicacies on the table, but rather undersize get games—and it is said the Dorking has these excellent qualities, grow to fine size and are less pugnacious. Now, make your selection, but do not have more than two sorts, one is best—attend to them well and you will have pleasure and profit from your poultry yards.

In addition to these, let me advise you to have a Dove-cot or Pigeon house. They increase rapidly. Have a particular hour for feeding them every day and they will soon come to the call and become

gentle, while you will soon take great delight in your pigeons. They are not only lovely pets, but very useful and profitable birds. Broiled squabs for breakfast and pidgeon pies for dinner is “not bad living,” and are dishes to be set before epicurean Kings.

Have you bees? If not, get a hive at once, attend to them and you will soon have more. You will be glad of having these industrious, inexpensive little laborers, who lay up such stores of delicious honey for you, when you and the household are enjoying the rich fruits of their incessant daily toil. A lady wishes me to make known for the benefit of those who have never tried them, the following recipes from “*The American Housewife*.”

## MUFFINS.

Mix a quart of wheat flour smoothly with a pint and a half of lukewarm milk, half a tea-cup of yeast, a couple of beaten eggs, a heaping tea-spoonful of salt, and a couple of table-spoonful of lukewarm melted butter. Set the butter in a warm place to rise. When light, butter your muffin cups, turn in the mixture, and bake the muffins till a light brown.

## FLUMMERY.

Lay sponge or Savoy cakes in a deep dish—pour on white wine sufficient to make them quite moist.—Make a rich boiled custard, using only the yolks of the eggs—turn it over the cakes when cool—beat the whites of the eggs to a froth, and turn them over the whole.

## A NEW LEAF.

BY FRANCES FAIRVIEW.

If everybody was perfect, if every home was a refined and peaceful one, if every household was conducted with the utmost intelligence and upon the most economical principles, my pen would be unnecessary as a writer in the Household Department of our magazine; hence, I come not to swell the ranks of a triumphant army celebrating its victories or reveling in the luxury of Capuan festivities, but to join the hosts that struggle before the uplifted draw bridge and the deep, wide moat and the closed port cullis, and the fortified parapets of the castle of Error; error which may properly be assailed by the Household Division of the Grand Army which would strike off the unscrupulous hands that endeavor to poison the fountains of our social existence, which well up within the sacred precincts of every man's enclosure. Who doubts the issue of the strife between Right and Error, if we could only league the influences of the household with the forces of Right? That is the source of wrong; I do not mean so much criminal wrong which leads to legal and summary punishment, but social wrong which produces social misery and is followed by social punishment, and the new leaf to which I refer in the heading of this article is the new leaf which so many members of so many households have concluded to turn over to correct, so far as in them lies, the many evils which prevent them from being perfect and from enjoying refined and peaceful household, conducted upon the intelligent and economical basis above referred to. With the other contributors of this Department, asking admission, I presume I have occupied all the space that will be allowed me, and in my first effort I will be brief with deference, leaving for the future articles an exhibition of the work of woman in her sphere and household, and a few ways in which the new leaf may be turned effectively.



## Boys and Girls Department

### A FEW STORIES ABOUT AN EVEN MIND.

BY UNCLE FRANK.

I wish to present for your attention this month, my dear boys and girls, a subject which I have intended to notice for a long time. You may consider this a short sermon, and as I offer it from a sense of duty in your interest, of course you can take a little preaching from me. What I allude to is the necessity of preserving upon all occasions, under all circumstances, an even mind, a mind undisturbed by calamity or success for good fortune sometimes completely destroys the mind of some persons. You have sometimes come across the words *equanimity* and *magnanimity* no doubt in your school books. The old Romans the people I wrote about when we were talking about the great building, the coliseum, which held a hundred thousands persons—used the word *aeguaninus*, composed of two words: (*aeguis*, even, and *animus*, mind); which means patient, calm, composed; and *magnanimity* means great-minded or big hearted from *magnus*, great, and *animus*, mind; but some day, boys and girls too, I hope you will find time to learn the Latin language—the one spoken by the Romans—and read all about those wonderful people, and also about the very many words in our language which we have taken from theirs—but about the even mind. I regard this virtue of so much consequence that it is the only one I have felt called upon to write about, believing you will obtain sufficient moral instruction outside of these pages, but I am not satisfied that sufficient importance will always be attached to the necessity of keeping an even mind; it is true this is not *all* that is necessary; if a person cultivates an even mind, alone, a great storm will beat down the brittle structure to the sand foundations upon which it is built, but I regard it as the chief foundation stone. I know that every day will present many inducements to act hastily and passionately, and that severe trials will test your fortitude to the utmost, but we will see what some individuals have suffered with an even mind.

About two hundred years ago, in 1690, John Bunyan, was arrested in England for preaching contrary to the laws of the realm and imprisoned for twelve years, but not only maintained his cheerfulness, but wrote over a dozen books while confined, one of which "Pilgrim's Progress" is one of the most popular and widely celebrated books we have.

About the same time William Penn, a Quaker, was also imprisoned in England for his religious opinions, and was able to endure the rigors of the jail with patience, and at the same time wrote a book in favor of his principles. This man was released, came to this country and founded the State of Pennsylvania which was named after him, and conducted its business upon such excellent principles that the surrounding savages were pacified and admired him, and the country he settled offered an asylum for those who were oppressed and persecuted elsewhere. Did you ever hear the story of Sir Isaac Newton? He was one of the greatest men of learning the world has produced; it would take a good many pages to tell you of the discoveries he made in astronomy and other branches of knowledge, and of the great books he wrote upon the laws which govern the world around us. This man was a great student and calculator, and wrote down the results of his investigations, and one day he went into his study and found that his dog had got upon his table and destroyed the labor of many years of his life; without showing any signs of rage, simply told the dog that "he did not know how greatly he had injured him," and sat down to his work again. Although this story is doubted by a great many, it shows in what high estimation the cheerful and amiable character of Sir Isaac was held by the people.

In different parts of the world people have been burned at stakes, thrown to wild beasts, hung, imprisoned, whipped or otherwise persecuted for their opinions, which persecution they have cheerfully endured, giving evidences under their applications that they remained firm to the last; now, the laws declare you shall not be persecuted in this country by the

authorities for your opinions, which should inspire a fervent love for our institutions, and induce you to bear all the small evils you meet with in your daily play or work or study with composure; if a lesson is hard; if a job of work is tiresome; if a play-mate treats you bad, in any and all events, undismayed by failures, encouraged by success, keep an even mind, and your happiness and true prosperity will be in proportion to the amount you display.

## THE FLORIST.

### FLORICULTURE FOR MARCH.

BY JOHN FEAST, FLORIST.

The weather of the past month was very severe on all plant growth, and doubtless has proved very disastrous to many tender plants and trees, but to what extent will be more fully known when spring opens, which bids fair to be a late one. A late spring will involve a busy time for the florist, as it will crowd a large amount of labor in a short space of time. We offer the following suggestions for the month:

Plants in the houses will now begin to bloom freely, such as *Camelias*, *Azaleas*, *Heaths*, *Acacias*, and many other hard wooded plants; give them plenty of air, if the days are fine, and close up early, so as to retain the natural heat, which is more beneficial than artificial heat, as they require moisture to keep them in good health; the want of moisture is the prolific source of the red spider. The use of the syringe is the only means to eradicate this pest; it is besides harmless and less liable to injure plants than those mixtures generally used.

Seeds of many kinds may be sown now, for spring planting or bedding out, and others struck from cuttings, as *Verbenas*, *Salvias*, *Coleus*, *Heliotropes*, *Mignonne*, which may be got in readiness to plant out when the spring opens. Those intended to flower in pots may now be shifted to larger pots; give at times a little guano water, or some other stimulant, to advance their growth.

*Geraniums*—Bring these forward, and give the last potting; they will now begin to show bloom; fumigate at times, and keep clean, which is essential to the health of all plants. They may yet be propagated for planting out; seedlings that are large enough report in larger pots.

*Soft Wooded Tender Plants* may be divided, or cuttings put in, as *Begonias*, *Marantas*, *Gesnerias*, *Gloxinias*, and many others, by dividing the roots. Prepare a rich, light soil of leaf mould, loam, rotted manure, and a little sand, and give them a warm situation—be sparing of water until they begin to grow, otherwise they will decay from too much moisture.

*Heaths* and *Rhododendrons* will soon flower, and should be kept cool, with moisture sufficient to keep in health.

*Tender Bulbs*—As *Crimineums*, *Brunsvigias*, *Amryllus*, *Curcunas*, *Ismenes*, should be re-potted, and the succors taken off; give them a place near the glass, they will produce finer foliage and flowers therefor. *Lillies* of many sorts report to such sizes as they are to flower in.

*Dahlias*.—Divide the roots, and when young wood is made, strike from cuttings, if a stock is wanted.

*Cannas* should now be divided, and reported in small pots.

*Tender Creepers*, as *Passion Flowers*, *Clematises*, *Cheats*, *Cissus*, and others, should be neatly tied up and pruned; cuttings for a young stock may be put in if wanted.

*Cinerarias* and *Calceolarias* should be encouraged in their growth; they require to be kept clean, are free growers, and require stimulating with guano water.

*Herbaceous Plants* can be divided as soon as the weather opens; when work can be done in the open ground, such as planting and pruning of shrubbery, trees, &c.

**FLOWER-POT WORMS.**—If any of our lady friends are annoyed by the worms that sometimes infest flower pots, they can get rid of them by putting an ounce of ammonia into a gallon of warm water, and watering the plants with it once a week.